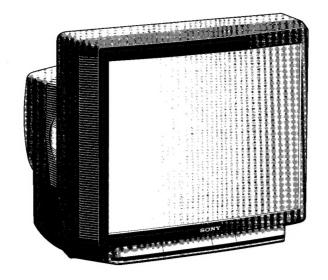
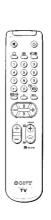
SERVICE MANUAL

BE-3D CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.	MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-29X1A	RM-839	Italian	SCC-K05H-A	KV-29X1K	RM-839	OIRT	SCC-K08Q-A
KV-29X1B	RM-839	French	SCC-K01H-A	KV-29X1L	RM-839	Irish	SCC-J21B-A
KV-29X1D	RM-839	AEP	SCC-K07H-A	KV-29X1R	RM-839	OIRT	SCC-K08R-A
KV-29X1E	RM-839	Spanish	SCC-K06H-A	KV-29X1U	RM-839	UK	SCC-K04F-A









ITEM MODEL	Television System	Channel Coverage	Colour System
Italian	B/G/H	VHF: E2-E12, S1-S20, A-H, H1,H2 UHF: E21-E69	PAL NTSC3.58/4.43 (video input only)
French	B/G/H, D/K, L, I	L SECAM VHF: F2-F10 UHF: F21-F69 TV CABLE TV (1) VHF: B-Q UHF: S21-S44 PAL B/G/H VHF: E2-E12 UHF: E21-E69 CABLE TV (1): S1-S41 CABLE TV (2): S01-S05, M1-M10, U1-U10 ITALIA VHF: A-H, H1, H2 PAL I UHF: B21-B69 D/K VHF: R01-R20 UHF: B21-B69 CABLE TV (1): S1-S41 CABLE TV (2): S01-S05, S42-S46	PAL, SECAM NTSC3.58/4.43 (video input only)
AEP	B/G/H, D/K	B/G/H VHF: E2-E12 UHF: S1-S20 CABLE TV (1): S1-S41 CABLE TV (2): S01-S05, M1-M10, U1-U10 ITALIA VHF: A-H, H1, H2 D/K VHF: R01-R20 UHF: B21-B69 CABLE TV (1): S1-S41 CABLE TV (2): S01-S05, S42-S46	PAL, SECAM NTSC3.58/4.43 (video input only)
Spanish	B/G/H, D/K	PAL B/G/H VHF: E2-E12 UHF: E21-E69 CABLE TV (1): S1-S41 CABLE TV (2): S01-S05, M1-M10, U1-U10 ITALIA VHF: A-H, H1, H2 D/K VHF: R01-R20 UHF: B21-B69 CABLE TV (1): S1-S41 CABLE TV (2): S01-S05, S42-S46	PAL, SECAM NTSC3.58/4.43 (video input only)
OIRT	B/G/H, D/K	B/G/H VHF: E2-E12 UHF: E21-E69 CABLE TV (1): S1-S41 CABLE TV (2): S01-S05, M1-M10, U1-U10 ITALIA VHF: A-H, H1, H2 D/K VHF: R01-R12 UHF: R21-R69 CABLE TV (1): S1-S41 CABLE TV (2): S01-S05, S42-S46	PAL, SECAM NTSC3.58/4.43 (video input only)
Irish UK	1	UHF: U21-U69	PAL NTSC3.58/4.43 (video input only)

MODEL	29X1A	29X1B	29X1D	29X1E	29X1K 29X1R	29X1L 29X1U
Power Consumption	87W	101W	101W	101W	101W	149W

SPECIFICATIONS

Picture Tube

Super Trinitron

Approx. 72 cm (29 inches)

(Approx. 68 cm picture measured

diagonally)

110° -deflection

[FRONT]

3, Video input - phono jack

→ 3, Audio inputs - phono jacks

3, S video input - 4 pin DIN

Stereo minijack - headphone jack

Rear/Front Terminals

[REAR]

1 21-pin Euro connector (CENELEC standard)

Inputs for audio / video signals

Inputs for RGB

Outputs for TV audio and video signals

→ 2/→ 2, 21-pin Euro connector (CENELEC standard)

Inputs for audio / video signals

Inputs for S video

Outputs for TV audio and video signals (selectable)

Sound output

Left/Right 2x10W (RMS)

2x20W (music power)

Dimensions

676x557x528 mm approx.

Weight Supplied accessories

Approx. 43.0 kg RM-839 Remote Commander (1)

Batteries R6 (2)

Other features

Fastext, TOPTEXT

[RM-839]

Remote control system

Infrared control

Power requirements

3V dc (2 batteries) R6 (size AA)

Dimensions

Approx. 210x45x24 mm (w/h/d)

Weight Approx. 90g (Not including battery)

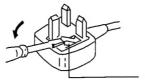
Design and specifications are subject to change without notice.

Model name	KV-29X1A	KV-29X1B	KV-29X1D	KV-29X1E	KV-29X1K KV-29X1R	KV-29X1L KV-29X1U
PIP	OFF	OFF	OFF	OFF	OFF	OFF
MPIP	OFF	OFF	OFF	OFF	OFF	OFF
Rotation Coil	ON	ON	ON	ON	ON	ON
VM Set	ON	ON	ON	ON	ON	ON
Scart 1	ON	ON	ON	ON	ON	ON
Scart 2	ON	ON	ON	ON	ON	ON
Front in (3)	ON	ON	ON	ON	ON	ON
Scart 4	OFF	OFF	OFF	OFF	OFF	OFF
AKB in 16:9 mode	ON	ON	ON	ON	ON	ON
тхт	ON	ON	ON	ON	ON	ON
FLOF	ON	ON	ON	ON	ON	ON
TOP	ON	ON	ON	ON	ON	ON
Norm B/G/H	ON	ON	ON	ON	ON	OFF
Norm I	OFF	ON	OFF	OFF	OFF	ON
Norm D/K	OFF	ON	ON	ON	ON	OFF
Norm L	OFF	ON	OFF	OFF	OFF	OFF
Language Preset	Italian	French	German	Spanish	OIRT	English

WARNING (KV-29X1L/29X1U only)

The flexible mains lead is supplied connected to a **B.S.** 1363 fused plug having a fuse of 5 **AMP** capacity. Should the fuse need to be replaced, use a 5 **AMP FUSE** approved by **ASTA** to **BS 1362**, ie one that carries the mark.

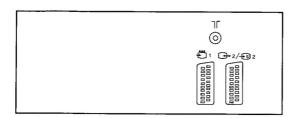
IF THE PLUG SUPPLIED WITH THIS APPLIANCE IS NOT SUITABLE FOR YOUR SOCKET OUTLETS IN YOUR HOME. IT SHOULD BE CUT OFF AND AN APPROPRIATE PLUG FITTED. THE PLUG SEVERED FROM THE MAINS LEAD MUST BE DESTROYED AS A PLUG WITH BARED WIRES IS DANGEROUS IF ENGAGED IN A LIVE SOCKET OUTLET. When an alternative type of plug is used it should be fitted with a 5 AMP FUSE, otherwise the circuit should be protected by a 5 AMP FUSE at the distribution board.

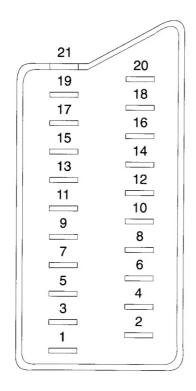


How to replace the fuse. Open the fuse compartment with the screwdriver blade and replace the fuse.

FUSE

21 pin connector ($\stackrel{\dots}{-}$ 1, $\stackrel{\dots}{\longrightarrow}$ 2/ $\stackrel{-}{-}$ 8 2)





	_		_		
Pin No.	1	2	4	Signal	Signal Level
1	0	0	0	Audio output B (Right)	Standard level : 0.5V rms Output impedance : Less than 1k ohms*
2	0	0	0	Audio input B (Right)	Standard level : 0.5V rms Output impedance : More than 10k ohms*
3	0	0	0	Audio output A (Left)	Standard level : 0.5V rms Output impedance : Less than 1k ohm*
4	0	0	0	Ground (Audio)	
5	0	0	0	Ground (Blue)	
6	0	0	0	Audio input A (Left)	Standard level : 0.5V rms Output impedance : Less than 10k ohm*
7	0	•	•	Blue input	$0.7 \pm 3 \text{dB}$, 75 ohms, positive
8	0	0	0	Function select (AV control)	High state (9.5 - 12V) : Part mode Low state (0 - 2V) : TV mode Input impedance : More10k ohms Input capacitance : Less than 2nF
9	0	0	0	Ground (Green)	
10	0	0	0	Open	
11	0	•	•	Green	
12	0	0	0	Open	
13	0	0	0	Ground (Red)	
14	0	0	0	Ground (Blanking)	
45	0	-	-	Red input	0.7 ± 3dB, 75 ohms, positive
15	-	0	0	(S signal) croma input	0.7 ± 3 dB, 75 ohms, positive
16	0	•	•	Blanking input (Ys signal)	High state (1 - 3V) Low state (0 - 0.4V) Input impedance : 75 ohms
17	0	0	0	Ground (Video output)	
18	0	0	0	Ground (Video input)	
19	0	0	0	Video output	1V ± 3dB, 75ohms, positive sync : 0.3V (-3 + 10dB)
20	0	-	-	Video input	1V ± 3dB, 75ohms, positive sync : 0.3V (-3 + 10dB)
20	-	0	0	Video input Y (S signal)	1V ± 3dB, 75ohms, positive sync : 0.3V (-3 + 10dB)
21	0	0	0	Common ground (plug, sheild)	

○ Connected ● Not Connected (Open) * at 20Hz - 20kHz

Pin No.	Signal	Signal Level·
1	Ground	
2	Ground	
3	Y (S signal) input	1V ± 3dB 75 ohm, positive Sync. 0.3V -3 + 10dB
4	C (S signal) input	0.3V ± 3dB 75ohm, positive Sync.

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TABLE OF CONTENTS

Sec	<u>ction</u>	<u>Title</u>	<u>Page</u>	Sec	ction	<u>Title</u>	<u>Page</u>
1.	GEN	IERAL		5.	DIA	GRAMS	
	Ove	erview	7		5-1.	Block Diagrams	33
	Get	tting Started	8		5-2.	Circuit Boards Location	38
	TV	Operation	9		5-3.	Schematic Diagrams and Printed Wiring Boards	
	Ad	vanced Operations	10			*D Board	
	Tel	etext	16			*A Board	48
	Opt	tional Equipment	17			*C Board	58
	For	Your Information	19			*VM Board	59
						*D2 Board	60
2.	DISA	ASSEMBLY				*IF Board [VIF (AEP), VIF (UK)]	63
	2-1.	Rear Cover Removal	20			*IF Board [VIF (FR)]	
	2-2.	Chassis Assy Removal	20			IC Blocks	
	2-3-1.	. Service Position (1)	20		5-4.	Semiconductors	67
	2-3-2.	. Service Position (2)	20				
	2-4.	Wire Dressing	21	6.	EXP	LODED VIEWS	
	2-5.	A Board Removal	21		6-1.	Chassis	69
	2-6.	Extension Board			6-2.	Picture Tube	70
	2-7.	Picture Tube Removal	22				
		Removal and Replacement of The Main-Bracket		7.	ELE	CTRICAL PARTS LIST	71
		Bottom Plates	23				
3.	SET-	-UP ADJUSTMENTS					
	3-1.	Beam Landing	24				
	3-2.	Convergence					
	3-3.	White Balance					
4.	CIRC	CUIT ADJUSTMENTS					
	4-1.	Electrical Adjustments	28				
	4-2.	Test Mode 2:					
	4-3.	BE-3D Self Diagnostic Software					

CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

WARNING!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.

THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK
ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND, IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

ATTENTION !!

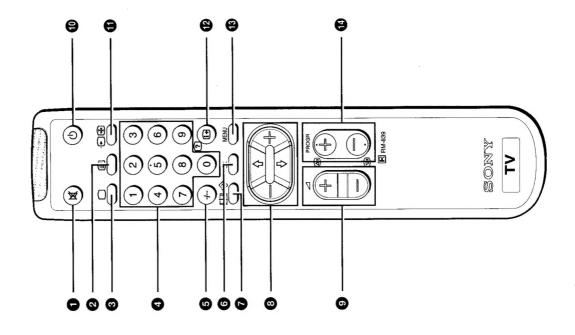
AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÁSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE. LE CHÁSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

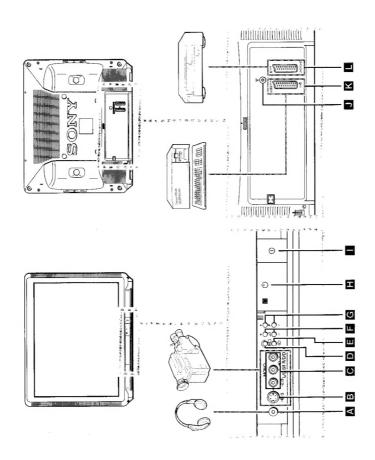
ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÈS PAR UNE TRAME ET PAR UNE MARQUE \(\bar{\Lambda}\) SUR LES VUES EXPLOSÉES ET LES LISTES DE PIECES SONT D'UNE IMPORTANCE CRITIQUE PUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÉCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY.

SECTION 1 GENERAL

The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.





Overview

Overview

on the Remote Commander. Please open the flap at the front of the instruction manual for illustrations of the TV set and the Remote Commander. Letters in boxes refer to the buttons on the TV set, numbers in circles to the buttons on the Remote Commander. For more information, refer to the page numbers given next to each description. This section briefly describes the controls and the buttons on the TV set and

TV buttons and Terminals

Reference and Symbol	Name	Refer to Page
Front of the set		
△	Headphones jack	4
B 633	S video input jack	29
G = 3, = 3	Audio/video input jacks	29
1	Automatic Preset button	11
ଜ	Input mode button	13
F 🛆 +/-	Volume control	12
G P+/-	Programme button	12
Ð ■	Standby mode indicator	12
Θ	Main power switch	12
Rear of the set		
	Aerial socket	10
⊼ → 31	21 pin Euro connector	29
L ↔2/—®2	21 pin Euro connector	29

Overview

Remote Commander Operation

Reference and Symbol	Name	Refer to Page
* •	Muting on/off button	12
8	Teletext button	13
0	TV power on/TV mode button	12, 13
a 1, 2, 9, 0	Number buttons	12
/- 9	Double digit entering button	12
© OK	OK (Confirmation) button	14
�/⊞ •	Screen format button Teletext: Favourite pages button	12, 28
	Menu control	14
-/+V 6	Volume control button	12
ာ ⊜	Standby button	12
⊕/G ⊕	Input mode button Teletext: Freezing the subpage	13, 27
() / ()	On-screen display button Teletext: reveal button	12, 27
® MENU	Menu on/off button	14
@ PROGR +/-	Programme buttons Teletext: Page up/page down buttons	12, 13

Getting Started

Step 1

Connecting the Aerial

(If you connect a VCR, skip to step 2)

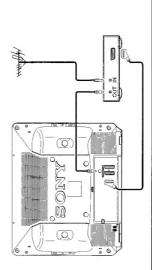
Insert the aerial plug tightly into the aerial socket T 🔟. Use a good-quality aerial cable (not supplied), corresponding to the relevant regulations.

Step 2

Connecting a VCR

We recommend that you tune in the VCR signal to programme number "0". For details, see "Presetting Channels Manually" on page 16.

See "Connecting Optional Equipment" on page 29 for more information.



Step 3

Inserting the Batteries Into the Remote Commander



Respect your environment! Dispose of used batteries in an environmentally friendly way.

Step 4

Presetting Channels Automatically

With this function, the TV can automatically search and store up to 100 different channel numbers.

If you prefer manual presetting, refer to "Presetting Channels Manually" on page

Plug into mains.

Press the power switch ① \blacksquare on the TV set.

2 Press and hold the button 🖭 🛭 on the TV set until the automatic menu is displayed and the search starts.

After all available channels are stored, the normal TV picture is shown.

Note: Channels are automatically stored as follows;

KV-25X1U/29X1U	KV-25X1L/29X1L
Programme 1 BBC1	Programme 1 RTE1
Programme 2 BBC2	Programme 2 RTE2
Programme 3 ITV	Programme 3 BBC1
Programme 4 CH4 or S4C	Programme 4 BBC2
	Programme 5 ITV
	Programme 6 CH4 or S4C

TV Operation

TV Operation (continued)

operations are carried out using the remote commander (numbers in circles). All basic functions are also available on the TV set (letters in boxes). Open the flap at the front of the Instruction Manual to see the illustrations of the Remote Commander and the TV set. This section explains functions used whilst watching TV. Most

TV Operation

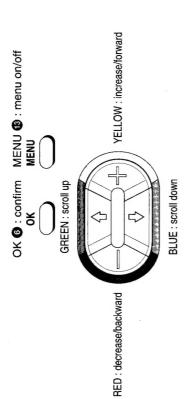
Ф	Press
Switch on	① I on TV
Switch off temporarily	 ⊕
Switch on from standby mode	○ ②, PROGR +/- ④ ⑤ or any number button ④.
Switch off completely	① II on TV To save energy, switch off your TV completely when TV is not in use.
Select programmes	PROGR +/- (or number buttons (For double digit number, press -/ (then the number e.g. For 23, press -/ (then 2 and 3.
Display on screen indications	(! → @ . Press again to make the indications disappear.
Adjust the volume	✓ + or - 9 🖪
Mute the sound	a ⊕ 0. Press again to restore the sound.
View programmes in 16:9 mode	田 ②. Press again to return to 4:3 mode.

ъ	Press
View video input picture (see page 30 for detailed information)	⊕ ① ☐ repeatedly until the desired video input appears. Press ○ ② to restore the TV picture.
View teletext (see page 27 for detailed information)	
Switch on	8 🖨
Select a page	three number buttons • or • • • • • (for next page) or • • • • (for previous page).
Use fastext	Blue, Green, Red or Yellow 8.
Switch off	0 0

Advanced Operations

Adjusting and Setting the TV Using the Menu

You can adjust and set various functions on the TV using the following remote commander buttons:



Choosing the Menu Language

This function enables you to change the language of the menu screens.

Press power switch ① 📘 on the TV. If the standby indicator 🖰 🖪 on the TV is lit, ENGLISH
DEUTSCH
FRANÇAIS
ITALIANO
NEDERLANDS
POLSKI
ČESKY
MAGYAR LANGUAGE **2** Press the MENU button **6** on the remote commander.

Press the MENU button (3) to restore the normal TV picture. 4

Press blue or green (8) to select the language you want then press yellow (8).

Presetting Channels Automatically

You may have already preset the channels automatically by using the method shown on page 11. You can also preset channels automatically by using the remote commander as follows:

Press the MENU button (8).

Press blue or green 8 to select screen then press yellow 8. the symbol 🖹 on the menu

■ AUTO PROGRAMME
MANUAL PROGRAMME
AV LABEL PRESET
PROGRAMME SORTING
PARENTAL LOCK
LANGUAGE PICTURE ROTATION [00] PRESET φ ① **4**1

3 Press blue or green @ to select 'AUTO PROGRAMME'.

Press and hold yellow ® until the automatic menu is displayed and the search starts. 4

preset, the normal TV picture is shown. After all available channels have been

PROG SYS CH LABEL 01 B/G C25 -----**AUTO PROGRAMME**

Presetting Channels Manually

numbers. This is also convenient for allocating programme numbers to various video This function enables you to preset channels one by one to different programme input sources.

Press the MENU button (3).

Press blue or green 8 to select screen then press yellow 8. the symbol en on the menu

■ AUTO PROGRAMME
MANUAL PROGRAMME
AVILABEL PRESET
PROGRAMME SORTING
PROGRAMME SORTING
PARENTAL LOCK
LANGUAGE
PICTURE ROTATION [00] PRESET ■ ~ | 0 40

> 'MANUAL PROGRAMME' then press Press blue or green 8 to select

F N N O O N N O O MANUAL PROGRAMME PRESET CHAN 522 522 522 522 522 522 523 PROG SYS
1 B/G
2 B/G
3 B/G
6 B/G
7 B/G
8 B/G
8 B/G
8 B/G

Press blue or green 8 to select on which programme number you want to preset a channel then press yellow 8. 4

Press blue or green 8 to select the TV broadcast system T or a video input source (AV1,AV2 ...) then press yellow 8.

(This step 6 is only for KV-25X1L/29X1L) ဖ

Press blue or green (8) to select 'C' (for terrestrial channels) or 'S' (for cable channels) then press yellow 8. Select the first number digit of 'CHAN' then the second number digit of 'CHAN' with the number buttons 4 on the remote commander

Press blue or green (8) to search for the next available channel number.

channel number using the number buttons 4 on the remote commander or If you want to store the channel number, go to step 9. If not, select a new press blue or green 3 to resume the search. 00

Press OK 6.

0

Repeat steps 4 to 9 to preset other channels.

Press the MENU button ® to restore the normal TV picture.

Adjusting the Picture and Sound

Although the picture and sound are adjusted at the factory, you can adjust them to suit your own taste.

Press the MENU button (8).

PICTURE CONTROL CONTRAST
BRIGHTNESS
COLOUR
SHARPNESS
HUE
RESET [A] [OFF] TREBLE
BARSI
BARANCE
RESET
SPATIOLIA
VOLUME OFFET (0. VOLUME FFIT)
COLUME OFFET (0. VOLUME FFIT) Press blue or green © The sound contract to select III for Spicture control The form of the selection of the

3 Press blue or green 8 to select the desired item then press yellow 8.

Press red or yellow 8 to alter the item then press OK 6. For the effect of each control, see the following tables. 4

5 Repeat steps 3 and 4 to adjust the other items.

Press the MENU button ® to restore the normal TV picture.

PICTURE CONTROL Effect

Lower —— I —— Higher	Darker —— I —— Brighter	Less —— I —— More	Softer —— I —— Sharper	Greenish —— —— Reddish (NTSC signals only)	Resets picture to the factory preset levels.
Contrast	Brightness	Colour	Sharpness	Hue	Reset

Adjusting the Picture and Sound (continued)

Effect

SOUND CONTROL

Treble	Less More
Bass	Less —— I —— More
Balance	Left —— —— Right
Reset	Resets sound to the factory preset levels.
Spatial	Acoustic sound effect.
Dual Sound	A: Left channel —> B: Right channel —> stereo —> mono
Volume Offset	Presets the volume level for individual programmes.
	-12 0 +12
⊖ Volume	Adjusts the headphone volume.
() Dual Sound	Presets the headphone channels.
	A: Left channel —> B: Right channel —> stereo —> mono

Manual Fine-Tuning

If the picture is distorted however, you can manually fine-tune the TV to obtain a Normally, the automatic fine-tuning (AFT) function is operating. better picture reception.

Press the MENU button ®.

Press blue or green 3 to select the symbol 3 on the menu screen then press yellow (6)

Press blue or green 8 to select 'MANUAL PROGRAMME' then press yellow .

4 FOSOSOSOS MANUAL PROGRAMME PRESET 2422224 PROG

Press blue or green (8) to select the programme number which corresponds to the channel you want to manually fine-tune.

Press yellow (8) repeatedly until the AFT position changes colour...

Press blue or green 8 to change the frequency of the channel from -15 to +15.

Press OK ®

Repeat steps 4 to 7 to fine-tune other channels.

Press the MENU button ® to restore the normal TV picture.

Sorting Programme Positions

This function enables you to move channels to different programme numbers.

Press the MENU button ®.

Press blue or green $\ensuremath{\mathfrak{g}}$ to select the symbol $\ensuremath{\Xi}$ on the menu screen then press yellow 6.

PROGRAMME SORTING' then Press blue or green 8 to select press yellow 3

† ⊕ ⊕

AV LABEL PRESET
PROGRAMME SORTING
PARENTAL LOCK
LANGUAGE
PICTURE ROTATION [00]

■ AUTO PROGRAMME MANUAL PROGRAMME

۵,

PRESET

▣

to another programme number the channel you want to move Press blue or green 8 to select then press yellow 8.

LABEL BBC - 1 RTL - -VHS - 1 ZDF - -TTV - -SKY - -SAT - 1 PROGRAMME SORTING SYS B 8/6 B

Press blue or green (3) to select the programme number to which you want to move the channel selected in step 4 then press yellow 8 Repeat steps 4 to 5 if you wish to move other channels to different programme numbers.

Press the MENU button (8) to restore the normal TV picture.

Using Parental Lock

This function enables you to prevent undesirable broadcasts from appearing on the screen. We suggest you use this function to prevent children from watching programmes which you consider unsuitable.

Press the MENU button (B).

Press blue or green $\ensuremath{\mathfrak{G}}$ to select the symbol $\ensuremath{\Xi}$ on the menu screen then press yellow ®

PRESET ≣ ₽ 4 Press blue or green 8 to select PARENTAL LOCK' then press yellow 8.

■ AUTO PROGRAMME
MANUAL PROGRAMME
AV LABEL PRESET
PROGRAMME SORTING
PROGRAMME SORTING
LAUGUAGE
PICTURE ROTATION [00] CHAN C23 C28 C29 C29 C24 C24 C14 C15 C15 C16 PARENTAL LOCK SYS B/G B/G B/G B/G B/G B/G B/G B/G PROG . ① **Œ**

the programme number to indicate that this channel is now blocked. Press blue or green 8 to select the channel you want to block The symbol appears before then press yellow 6.

LABEL BBC - 1 RTL - : VHS - 1 ZDF - : ITV - : SKY - : SAT - 1 BBC - 2

Repeat step 4 if you wish to block other channels.

Press the MENU button (3) to restore the normal TV picture.

Note: To unblock, press yellow (3) after selecting the channel to unblock in the 'PARENTAL LOCK' menu.

Using the Sleep Timer

This function enables you to select a time period after which the TV automatically switches into standby mode.

Press the MENU button ®.

on the menu screen then to select the symbol ① Press blue or green 8 press yellow 8.

[OFF] SLEEP TIMER TIMER ▣ ¢ 0 4

Press yellow 8.

4 Press red or yellow 8 to set time delay and press OK 6.

OFF 0:30 1:00 1:30 3:30 4:00

One minute before the TV switches into standby mode, a message is displayed on the screen.

5 Press the MENU button ® to restore the normal TV picture.

4

Adjusting the Picture Rotation

If, due to the earth magnetism, the picture slants, you can use the function 'Picture Rotation' to readjust the picture.

Press the MENU button (3)

PRESET 3 † 0 **u** Press blue or green 3 to select the symbol \boxminus on the menu screen then press yellow 8.

■ AUTO PROGRAMME

MANUAL PROGRAMME
AV LABEL PRESET
PROGRAMME SORTING
PAGENAMIC SORTING
PARENTAL LOCK
LANGUAGE
PICTURE ROTATION [00]

Press blue or green (8) to select 'PICTURE ROTATION' then press yellow (8).

Press red or yellow (6) to adjust the picture rotation then press OK (6). The adjusting range is -5 to +5.

Press the MENU button ® to restore the normal TV picture.

Skipping Programme Positions

numbers with the PROGR+/-buttons. However, you can still watch the skipped This function enables you to skip unused channels when selecting programme channel(s) by using the number buttons.

Press the MENU button (6).

Press blue or green 8 to select the symbol \boxminus on the menu screen then press yellow @

'MANUAL PROGRAMME' then press Press blue or green ® to select

AUTO PROGRAMME
MANUAL PROGRAMME
AV LABEL PRESET
PROGRAMME SORTING
PROGRAMME SORTING
LANGUAGE
PICTURE ROTATION [00] PRESET ∄ 4 ф **10**

Press blue or green (8) to select the channel you want to skip then press yellow 8. 4

'---' appears in the 'SYS' position. Press blue or green 8 until

MANUAL PROGRAMME PRESET 8/3 8/3 8/3 8/3 8/3 8/3 8/3 8/3 8/3

Press OK 6

Repeat steps 4 to 6 to skip other channels.

Press the MENU button **®** to restore the normal TV picture.

5

Captioning a Station Name

Names for channels are usually automatically taken from teletext if available. You can however name a channel or an input video source using up to five characters (letters or numbers).

Press the MENU button ®.

Press blue or green $lue{o}$ to select the symbol $lue{e}$ on the menu screen then press yellow @.

'MANUAL PROGRAMME' then press Press blue or green 8 to select m

AUTO PROGRAMME
MANUAL PROGRAMME
AV LABEL PRESET
PROGRAMME SORTING
PROGRAMME SORTING
LANGUAGE
LANGUAGE
PICTURE ROTATION [00] PRESET . φ 0 Œ ■

Press blue or green 3 to select the channel you wish to caption then press yellow ® repeatedly until the first element of the 'LABEL' position is highlighted.

Select other characters in the same vellow (8 (select '-' for a blank). Press 8 blue or green to select a letter or number and press

MANUAL PROGRAMME PRESET CHAN SYS B/G PROG

ည

After selecting all the characters, press OK

Repeat steps 4 to 6 to caption names for other channels.

Press the MENU button ® to restore the normal TV screen.

Teletext

he broadcaster (usually page 100) gives you information on how to use Make sure you use a TV channel with a strong signal, otherwise teletext Most TV channels broadcast information via teletext. The index page of he service.

errors may occur.

Switching Teletext On and Off

Select the channel which carries the teletext service you wish to view.

If no teletext signal is broadcast, the indication P100 is displayed on a black Press 🖹 2 to display teletext. screen.

The page counter searches for the page and after some seconds the page is Input three digits for the page number using the number buttons 4. displayed.

f 4 Press igthightarrow f 8 to return to the normal TV picture.

Using Other Teletext Functions

Press

(E) (G) for the next page or (Y) (G) for the preceding page (a) When in teletext mode. programme. Press again to Now the teletext page is superimposed on the TV Access the next or preceding Mix the mode teletext page

♣ ① Press once again to cancel. display.

return to the normal teletext

Reveal hidden information (eg: answers to a quiz)

Freeze a teletext subpage

② ② Press once again to cancel.

Favourite page system

(ou can store up to four of your favourite teletext pages per Teletext service. In this way you have quick access to the pages you frequently use.

Storing pages

1 Use the number buttons 4 to select the page you would like to store.

2 Press 🚓 🗗 twice.

The colour prompts at the bottom of the screen flash.

3 Press red, green, blue or yellow to store the selected page. The page is now stored on this colour.

Repeat steps 1 to 3 for the other 3 pages.

Displaying the Favourite Pages

1 Press 🖘 🗗

2 Press blue, green, red or yellow to select the desired page.

Make sure you press ♦> • otherwise the normal Fastext facility operates.

Using Fastext

(only available, if the TV station broadcasts Fastext signals)

With Fastext you can access pages with one key stroke. When Fastext is broadcast, a correspond to the red, green, yellow and blue colours on the Remote Commander. colour-coded menu appears at the bottom of the screen. The colours of this menu

Press the Remote Commander colour button that corresponds to the colour-coded menu. The selected page is displayed after some seconds.

Connecting Optional Equipment

Optional Equipment

There is a wide range of optional equipment you can connect to your TV. Refer to the illustrations on the front flap page of this manual.

Symbol	Acceptable input signals	Available output signals
⊕3,⊕3B ⊕3.€	巴3, 巴3 B Normal audio/video and S video No output 图3 C	No output
-Ö1K	Normal audio/video and RGB	Audio/video from TV tuner
⊕2/⊕2 🖪	Normal audio/video and S video	Audio/video from selected source

About S video input

Video signals may be separated into Y (luminance) and C (chrominance) signals. Separating the two signals prevents interference and thus improves the picture quality.

Notes on connections:

If the picture or sound is distorted, move the VCR away from the TV.

When connecting a monaural VCR, connect only the white jack to both the TV and

Selecting Input and Output Signals

This section explains how to select the output signal from \ominus 2/ \ominus 2 \blacksquare and how to select and view the input. You can use direct access buttons 🕘 🛈 🖪 to select the input or the menu system to select input and output.

Selecting With Direct Access Buttons

Press 🕘 🛈 🖃 repeatedly.

Press

Store the normal TV picture.

Symbol on the screen	Input Signal
1	Andia / wides through Him AV connector K
, :(nond / viaco anoden namenos
Q)	KGB through Euro Av connector
7	Audio/video through Euro AV connector
5 9 2	S video through Euro AV connector
€ ⊕	Audio/video through the phono jacks G
€®3	S video through the phono jacks B

Selecting With the Video Connection Menu

Press the MENU button (3).

select →□→ for "VIDEO CONNECTION" Press blue or green 8 to then press yellow 8.

VIDEO CONNECTION : ≥ ~ [] © 00

Press blue or green to select input or output then press yellow 3.

Press blue or green repeatedly to select the desired input or output source then press OK 6.

Press the MENU button ® to restore the normal TV picture.

If you select 'AUTO' for output, the output source automatically becomes the same as the desired input source. Note:

Using AV Label Preset

This function enables you to label the input sources using up to five characters (letters or numbers).

Press the MENU button ®.

Press blue or green 8 to select the symbol \overrightarrow{E} on the screen then press yellow 6.

LABEL AV LABEL PRESET INPUT RAV1 RGB AV2 YC2 AV3 YC2 Press blue or green (8) to select 'AV LABEL PRESET' then press yellow 8.

: -:

> Press blue or green $\ensuremath{\bf 0}$ to select the desired input source then press yellow $\ensuremath{\bf 0}$. 4

Press blue or green 8 to select a letter or number then press yellow 8 (select '-' Select other characters in the same way. for a blank).

After selecting all the characters, press OK .

Repeat steps 4 to 6 to label other input sources.

Press the MENU button (8) to restore the normal TV screen. ∞

Troubleshooting

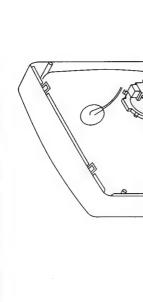
Here are some simple solutions to the problems which affect the picture and sound.

Problem	Solution
No picture (screen is dark), no sound	•Plug the TV in. •Press ① ■ on the TV. (If \circlearrowleft indicator ■ is on, press \circlearrowleft Ø or a programme number \textcircled{o} on the Remote Commander.) •Check the aerial connection. •Check if the selected video source is on. •Turn the TV off for 3 or 4 seconds then turn it on again using \textcircled{o} ■.
Poor or no picture (screen is dark), but good sound	• Press MENU (1) to enter the 'PICTURE CONTROL' menu and adjust 'Contrast', 'Brightness' and 'Colour'.
Poor picture quality when watching an RGB video source.	•Press ₴ � █ E repeatedly to select .
Good picture but no sound	•Press ∠ + ⑤ F. •If o% is displayed on the screen, press o% ①.
No colour for colour programmes	• Press MENU (3) to enter the 'PICTURE CONTROL' menu, select 'Reset' then press OK (3) .
Remote Commander does not function.	•Replace the batteries.

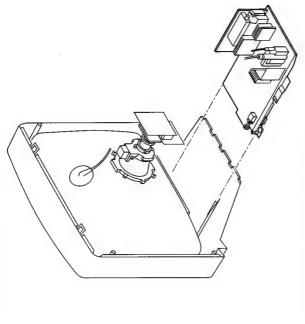
If you continue to have problems, have your TV serviced by qualified personnel. Never open the casing yourself.

DISASSEMBLY SECTION 2

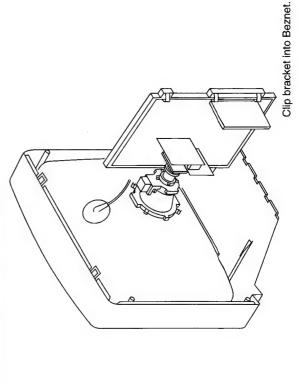
2-1. REAR COVER REMOVAL



2-2. CHASSIS ASSY REMOVAL



2-3-2. SERIVCE POSITION (2)

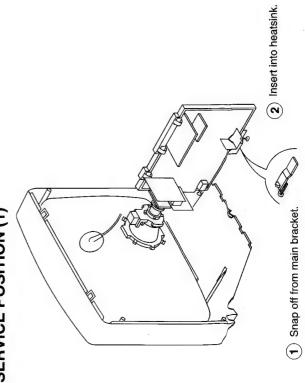


((3) Rear Cover

Every Screws (BVTP 4x16)

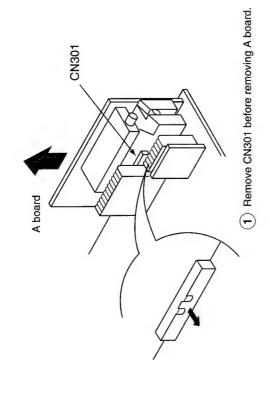
(1) One screw (BVTP 4x16)

2-3-1. SERVICE POSITION (1)

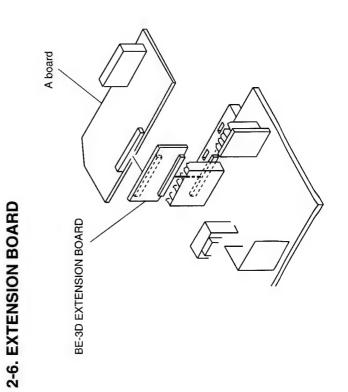


2-5. A BOARD REMOVAL

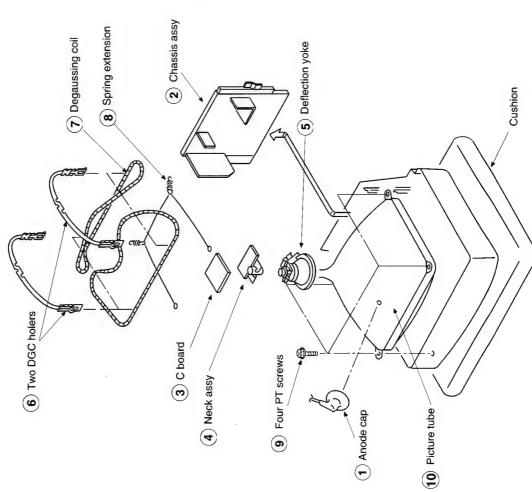
2-4. WIRE DRESSING



/



2-7. PICTURE TUBE REMOVAL



REMOVAL OF ANODE-CAP

Note: Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT, after removing the anode.

* REMOVING PROCEDURES.









anode-cap can be removed by turning up the rubber cap and pulling it up in separated from the anode button, the (3) When one side of the rubber cap is the direction of the arrow ©

HOW TO HANDLE AN ANODE-CAP

- Don't damage the surface of anode-cap with sharp shaped material! Don't press the rubber hardly not to hurt inside of anode-caps! (2)
 - A metal fitting called as shatter-hook terminal is built into the rubber. Don't turn the foot of rubber over hardly!
 - The shatter-hook terminal will stick out or damage the rubber. (m)





REMOVAL AND REPLACEMENT OF THE MAIN-BRACKET BOTTOM PLATES.

(1) REMOVING THE PLATES

In the event of servicing being required to the solder side of the D Board printed circuit, the bottom plates fitted to the main chassis bracket require to be removed. This is performed by cutting the gates with a sharp wire cutter at the locations shown and indicated by arrows.

Note: There are 5 plates fitted to the main bracket and secured by 4 or 6 gates. Only remove the necessary plate to gain access to the circuit board.

For safety reasons, on no account should the plates be remained not refitted after servicing.

(2) REFITTING THE PLATES

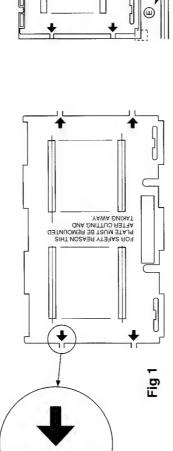
Because the plates differ in size it is important that the correct plates are refitted in their original location.

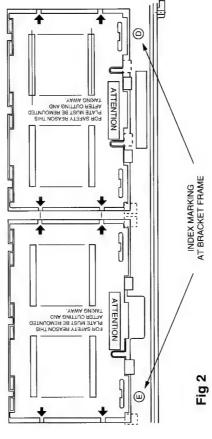
The plates are identified by markings A-B-C-D-E on their top side.

- Identify the plate by locating its marking.
- Turn the plate over noting where the marking is located.

-i 6i 6i 4i

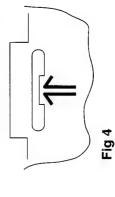
- Locate the corresponding marking indicated on the main chassis bracket. See Fig 2.
 - Refit the plate as indicated in Fig 3 with the markings located next to each other.

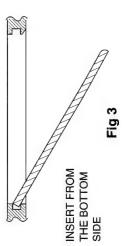




In the event of the plates requiring to be removed at a later stage, this can be achieved by inserting a screwdriver in the snap-recess indicated as in Fig 4 and lifting out.

MAIN BRACKET





SECTION 3 SET - UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there are specific instructions to the contrary, carry out these adjustments with the rated power
- Unless there are specific instructions to the contrary, set the controls and switches to these settings:

Contrast	80%	(or remote control
	norma	al)
A Brightness	50%	

- Carry out the following adjustments in this order:
- Beam landing
- 2. Convergence
- 3. Focus
- White balance

Note: Testing equipment required.

- 1. Color bar/pattern generator
- 2. Degausser
- 3. DC power supply
- 4. Digital multimeter
- 5. Oscilloscope

Preparation:

- In order to reduce the influence of geomagnetism on the set's picture tube, face it east or west.
- Switch on the set's power and degauss with the degausser.

3-1. BEAM LANDING

- 1. Input the white signal with the pattern generator. **CONTRAST** normal **BRIGHTNESS**
- 2. Position neck assy as shown in Fig.3-2.
- 3. Set the pattern generator raster signal to red.
- 4. Move the deflection yoke forward and adjust with the purity control so that the red is at the centre and the blue and the green take up equally sized areas on each side. (See Fig. 3-1 - 3-3)
- 5. Move the deflection yoke forward and adjust so that the entire screen becomes red. (See Fig. 3-1)
- 6. Switch the raster signal to blue, then to green and verify the condition.
- 7. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.
- 8. If the beam does not land correctly in all the corners, use a magnet to adjust it. (See Fig. 3-4)

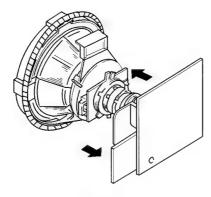
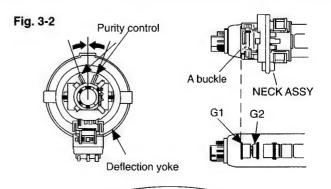
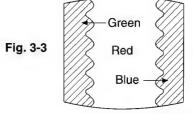
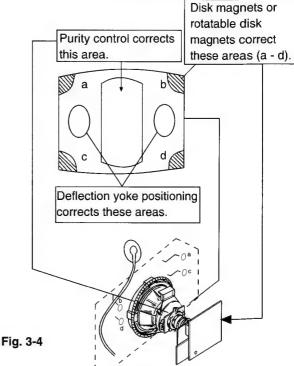


Fig. 3-1







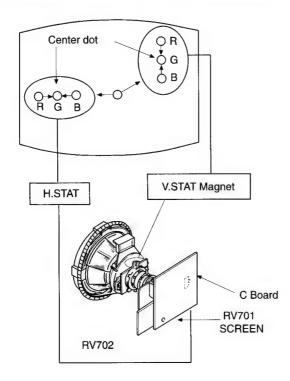
— 24 **—**

3-2. CONVERGENCE

Preparation:

- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide a dot pattern.

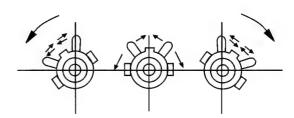
(1) Horizontal and vertical static convergence



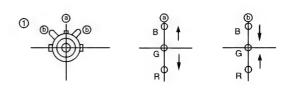
- 1. (Moving horizontally), adjust the H.STAT control so that the red, green, and blue points are on top of each other at the centre of the screen.
- (Moving vertically), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the centre of the screen.
- If the H.STAT variable resistor cannot bring the red, green, and blue points together at the centre of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V.STAT magnet in the manner given below.
 (In this case, the H.STAT variable resistor and the

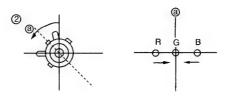
(In this case, the H.STAT variable resistor and the V.STAT magnet influence each other)

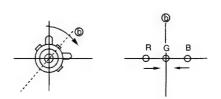
• Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.

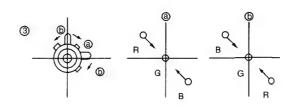


4. If the V.STAT magnet is moved in the direction of the (a) and (b) arrows, the red, green, and blue points move as shown below.

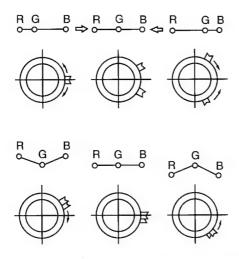




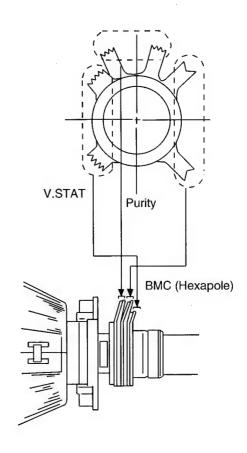




• Operation of BMC (Hexapole) Magnet



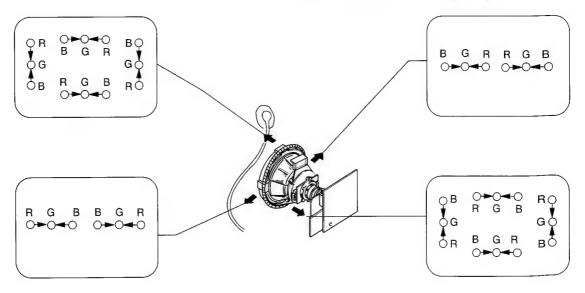
 The respective dot position resulting from moving each magnet interact, so be sure to perform adjustment while tracking.
 Use the H.STAT VR to adjust the red, green, and blue dots so they coincide at the centre of the screen (by moving the dots in the horizontal direction).



(2) Dynamic convergence adjustment.

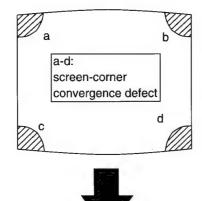
Preparation:

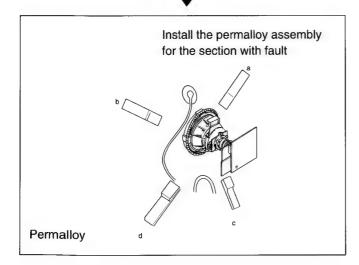
- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.
- 1. Slightly loosen the deflection yoke screws.
- 2. Remove the deflection yoke spacer.
- 3. Move the deflection yoke as shown in the figure below and optimize the convergence.
- 4. Tighten the deflection yoke screws.
- 5. Re-install the deflection yoke spacer.



(3) Screen corner convergence.

If you are unable to adjust the corner convergence properly, correct them with the use of permalloy assemblies.





3-3. WHITE BALANCE

G2 Setting

- 1. Switch the set into AV mode (apply no signal to the AV connectors).
- 2. Connect a Volt Meter to Test Point 1 on the A board.
- 3. Adjust RV01 to obtain a voltage of $3.0V \pm 0.3V$.

White balance adjustment

- 1. Input an all white signal from the pattern generator.
- 2. Enter into the service mode.
- 3. Enter into Picture Adjustment service menu.
- 4. Select sub-contrast and adjust to 7.
- 5. Select the Green Drive and adjust so that the white balance becomes optimum.
- 6. Select the Blue Drive and adjust so that the white balance becomes optimum.
- 7. Press the TV button to return to TV operation.

PICTURE ADJUSTMENT	
AFC mode	1
REF position	2
SCP BGR	1
SCP BGF	1
Trap Fo	0
Sub contrast	Adj
Sub colour	Adj
Sub brightness	Adj
Sub hue	Adj
Green drive	Adj
Blue drive	Adj
Green cutoff	Adj
Blue cutoff	Adj
Gamma	0
Pre / overshoot	0
Y delay	3

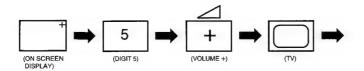
SECTION 4 CIRCUIT ADJUSTMENTS

4-1. ELECTRICAL ADJUSTMENTS

Service adjustment to this model can be performed with the supplied remote commander RM-839.

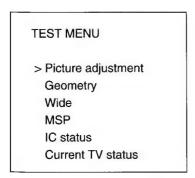
HOW TO ENTER INTO SERVICE MODE

- 1. Turn on the main power switch of the set and enter into standby mode.
- 2. Press the following sequence of buttons on the Remote Commander.



"TT--" will appear in the top right corner of the screen. Other status information will also be displayed.

3. Press MENU on the commander to obtain the following menu on the screen.



- 4. Move to the corresponding adjustment using the button on the commander.
- 5. Press the + button to enter the selected adjustment.
- 6. Turn off the power to quit the service mode when adjustments are completed.

PICTURE ADJUSTMENT	
AFC mode	1
REF position	3
SCP BGR	, 1
SCP BGF	1
Trap Fo	7
Sub contrast	Adj
Sub colour	Adj
Sub brightness	Adj
Sub hue	Adj
Green drive	Adj
Blue drive	Adj
Green cutoff	Adj
Blue cutoff	Adj
Gamma	0
Pre / overshoot	0
Y delay	5

GEOMETRY ADJUSTME	NT
V Size	Adj
V Position	Adj
S Correction	Adj
V Linearity	Adj
H Size	Adj
H Position	Adj
Pin Amp	Adj
Pin Phase	Adj
AFC Bow	Adj
AFC Angle	Adj
EHT V	Adj
EHT H	Adj
Corner Pin	Adj

WIDE		
V Aspect	43	
V Scroll	31	
Upper V Lin	0	
Lower V Lin	0	
Left Blanking	1	
Right Blanking	11	

MSP	
AGC ON/OFF	ON
Constant gain CDB	0
FM prescale FMP	36
Zwei mono-st WHI	36
Zwei st-mono WLO	18
Zwei mono-bi WMH	36
Zwei bi-mono WLO	18
Time zwei WML	41
Fawct limit	10
Fawct soll init FAW	12
Fawer tol	2
Nicam Err Max CCT	10
Nicam Err Min	0
Nicam Prescale NIP	97
Time Nicam	31
Carrier mute CRM	OFF
Audio clock ACO	HIZ
Scart prescale	25
Scart volume	64

IC STATUS (CXA2000 / CXA2040)		
CXA2000		
H lock	1	
IKR	1	
VNG	0	
X-RAY	0	
Colour system	3	
CV1 Sync	1	
CXA2040		
Sync sep	1	
S1 mode pin	01	
S2 mode pin	01	
TUNER		
Tuner status	01101011	

C TEXT/TV TEXT
NO/YES
WEST/EAST/RUSSIAN
WEST/EAST/RUSSIAN
B/D/U/K/L/E/A/R
OFF/ON
OFF/ON
OFF/ON
29/25
SECAM/ALL
ON/OFF
WINDOW/HIGH/LOW

SUB BRIGHTNESS ADJUSTMENT

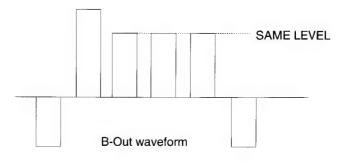
- 1. Input a Phillips pattern.
- 2. Set the picture control to minimum.
- 3. Enter into the Picture Adjustment Service Menu.
- 4. Adjust the Sub-Brightness data so that there is barely a difference between the 0 IRE and 10 IRE signal.

SUB CONTRAST ADJUSTMENT

- 1. Input a video that contains a small 100% area on a black background.
- 2. Set the picture control to maximum.
- 3. Connect an oscilloscope to pin 3 of CN301 (A board).
- 4. Enter into the Picture Adjustment Service Menu.
- 5. Adjust the Sub-contrast data to obtain a black to white amplitude of 2.50 volts.

SUB COLOUR ADJUSTMENT

- 1. Receive a PAL Colour Bar video signal.
- 2. Connect an oscilloscope to pin 3 of CN301 (A board).
- 3. Enter into the Picture Adjustment Service Menu.
- 4. Adjust the sub colour data so that cyan, magenta and blue colour bars are of equal height.



NOTE: The data shown in the TV STATUS table is dependant on destination, screen size and country.

SYSTEM B/G, D/K, I & L I.F ADJUSTMENT

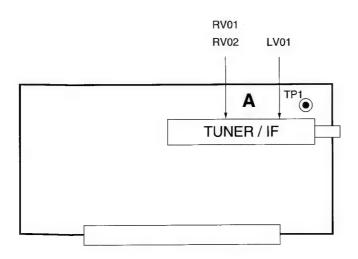
- 1. Input an off air signal of between 60-100dBuV / 75 ohm terminated, via the tuner socket.
- 2. Enter into the I.F adjustment service mode (i.e. " TT 59 ") to fix the I.F frequency to 38.9 MHz.
- 3. Enter into the service mode and select "Current TVStatus".
- 4. Adjust the I.F coil (LV01) until the "AFT Status" indicates a "Window" condition.

SYSTEM L BAND 1 I.F ADJUSTMENT

- 1. Input an off air signal of between 60-100dBuV / 75 ohm terminated, via the tuner socket.
- 2. Enter into the I.F adjustment service mode (i.e. " TT 59 ") to fix the I.F frequency to 34.2 MHz.
- 3. Enter into the service mode and select "Current TVStatus".
- 4. Adjust the RV02 until the "AFT Status" indicates a "Window" condition.

TUNER AGC ADJUSTMENT

- 1. Receive a signal of 63dBuV / 75 ohm terminated via the tuner socket.
- 2. Measure the voltage at test point 1 (A board).
- 3. Adjust RV01 to obtain a voltage of $3.0V \pm 0.3V$.

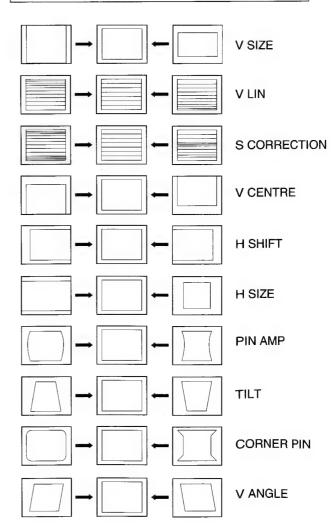


- A Board component side -

DEFLECTION SYSTEM ADJUSTMENT

- 1. Enter into the Geometry Adjustment Service Menu.
- 2. Select and adjust each item in order to obtain the optimum image.

GEOMETRY ADJUSTM	IENT
V Size	Adj
V Position	Adj
S Correction	Adj
V Linearity	Adj
H Size	Adj
H Position	Adj
Pin Amp	Adj
Pin Phase	Adj
AFC Bow	Adj
AFC Angle	Adj
EHT V	Adj
EHT H	Adj
Corner Pin	Adj



4-2. TEST MODE 2:

Is available by pressing Test button twice, OSD $^{"}$ TT $^{"}$ appears. The functions described below are available by pressing the two numbers. To release the Test mode 2, press 0 twice, or switch the TV into stand-by mode.

00	Switch test mode 2 off			
01	Picture maximum			
02	Picture minimum			
03	Volume 30%			
04	Set service menu mode			
05	Set production menu mode			
06	Volume 80%			
07	Set ageing condition			
08	Set shipping condition			
09	Language reset			
10	No function			
11	Adjustment without OSD			
12	Dummy			
13	Display TV configuration			
14	Forced AV 6:9 mode			
15	Reset LPM from ROM data			
16	copy LPM to reset memory			
17	Preset label for AV sources			
18	RGB priority on/off			
19	Clear all preset labels			
20	No function			
21	Sub contrast			
22	Sub colour			
23	Sub brightness			
24	Set destination = U			
25	Set destination = D			
26	Set destination = B			
27	Set destination = K			
28	Set destination = L			
29	Set destination = E			
30	No function			
31	Set destination =A			
32	Dummy			
33	Auto AGC			
34	Dummy			
35	Manual AGC adjust			
	<u> </u>			

36-40	Dummy				
41	Re-initialise NVM				
42	Production use only				
43	Initialise geometry settings				
44	Initialise all favourite pages = 100				
45	Channel locks = off				
46	Dealer commander mode				
47	Default MSP settings				
48	Restore NVM test byte				
49	Delete NVM test byte				
50-60	No function				
61	Turn on Dolby Pro Logic mode				
62	White noise to left speaker				
63	White noise to right speaker				
64	White noise to centre speaker				
65	White noise to rear speaker				
66	Set standard stereo mode				
67	Set Pro Logic normal mode				
68	Set Pro Logic wide mode				
69	Set Pro Logic phantom mode				
70	No function				
71	Picture rotation on/off				
72	Dolby register settings				
74	No function				
75	Reset picture colour balance				
76	Reset picture geometry				
77	Reset sound settings				
78	Reset error codes in the NVM				
79-99	No function				

4-3. BE-3D SELF DIAGNOSTIC SOFTWARE

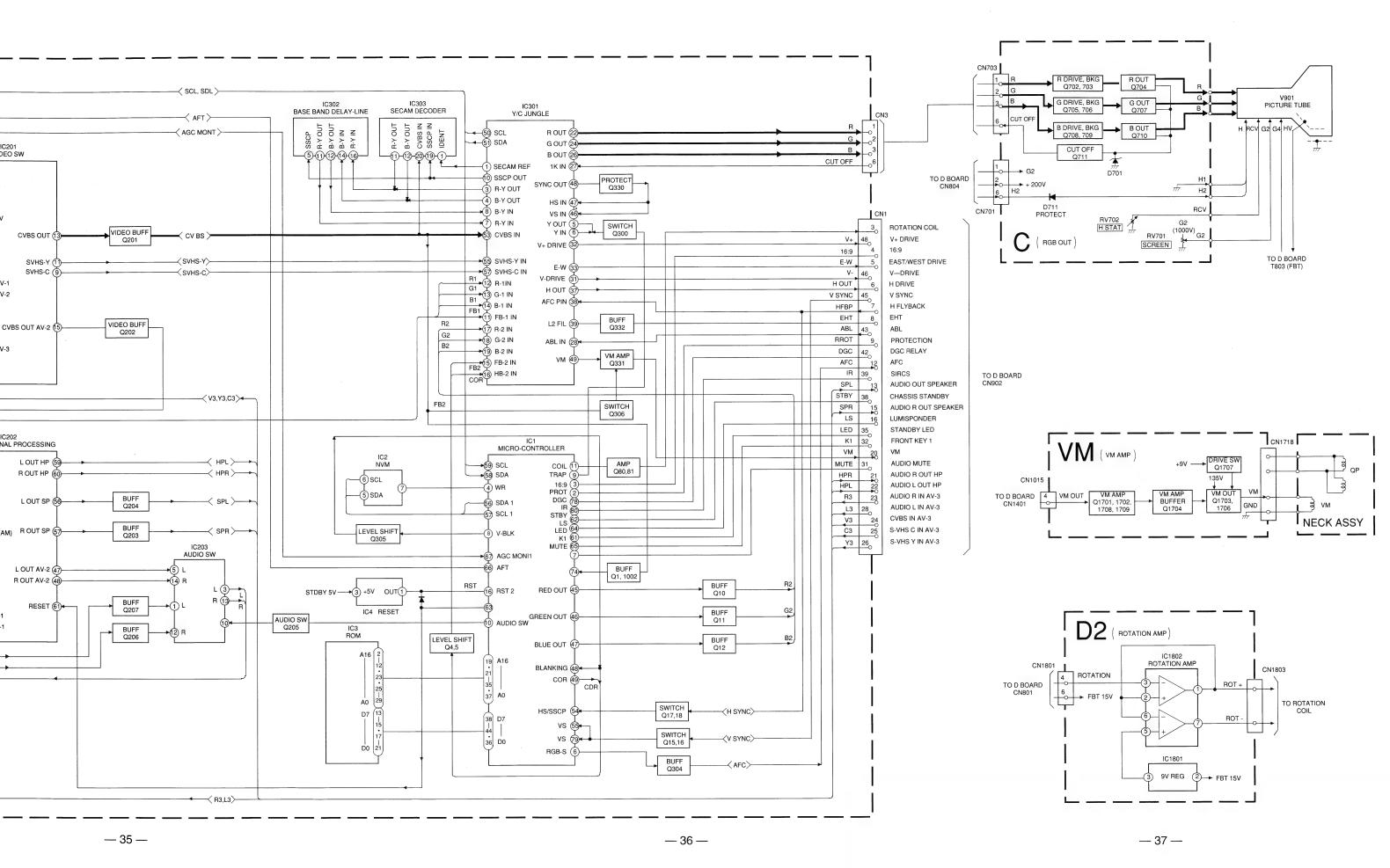
The identification of errors within the BE-3D chassis is triggered in 1 of 2 ways:-1: Bus busy or 2: Device failure to respond to IIC. In the event of one of these situations arising the software will first try to release the bus if busy (Failure to do so will report with continuous flashing LED) and then communicate with each device in turn to establish if a device is faulty. If a device is found to be faulty the relevant device number will be displayed through the led (Series of flashes which must be counted) See Table 1, non fatal errors are reported with this method.

Table 1

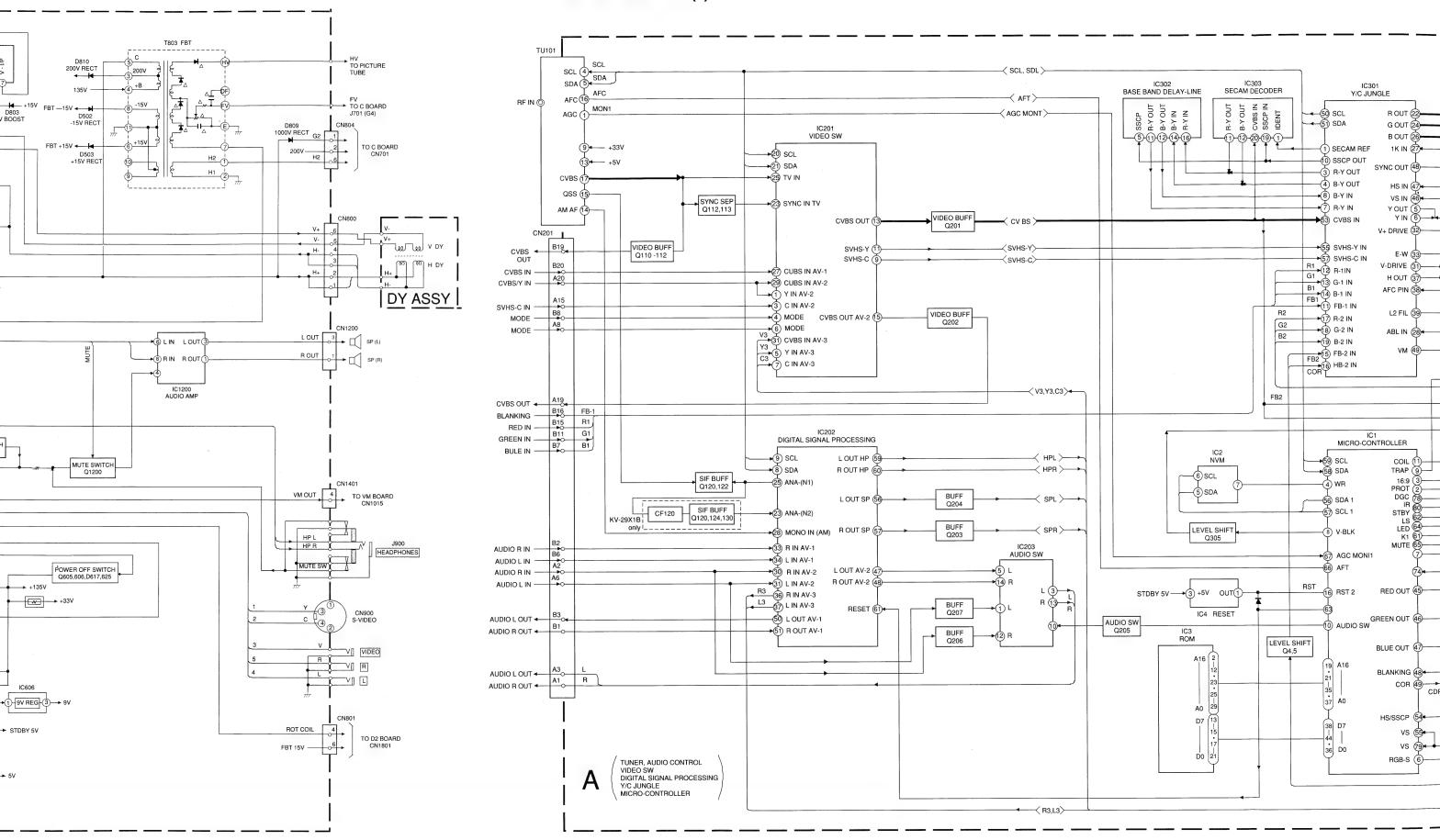
ERROR	LED ERROR COUNT
Protection circuit trip < ANY TIME >	02
IIC SCL LOW < POWER UP ONLY >	03
IIC SDA LOW < POWER UP ONLY >	04
IIC SDA & SCL LOW < POWER UP ONLY >	05
Jungle/Choroma controller no acknowledge < POWER UP ONLY >	06
Video Switch no acknowledge < POWER UP ONLY >	07
Tuner no acknowledge	08
MSP no acknowledge	09
NVM no acknowledge	10
M3L TXD LOW < POWER UP ONLY >	11
M3L RXD LOW < POWER UP ONLY >	12
M3L ENABLE LOW < POWER UP ONLY >	13
M3L TXD & RXD LOW < POWER UP ONLY >	14
Compact Text test fail < POWER UP ONLY >	15
AV switch cannot power on reset	16
Cannot initialise jungle	17
NVM acknowledge fail after initialisation	18
Multiple devices with no acknowledge < POWER UP ONLY >	19
Compacttext run-time failure	20
AVSWITCH response failure after power up	21
JUNGLE/CHROMA controller response failure after power up	22
CompactText does not respond	23

Flash Timing Example: e.g. error number 3.



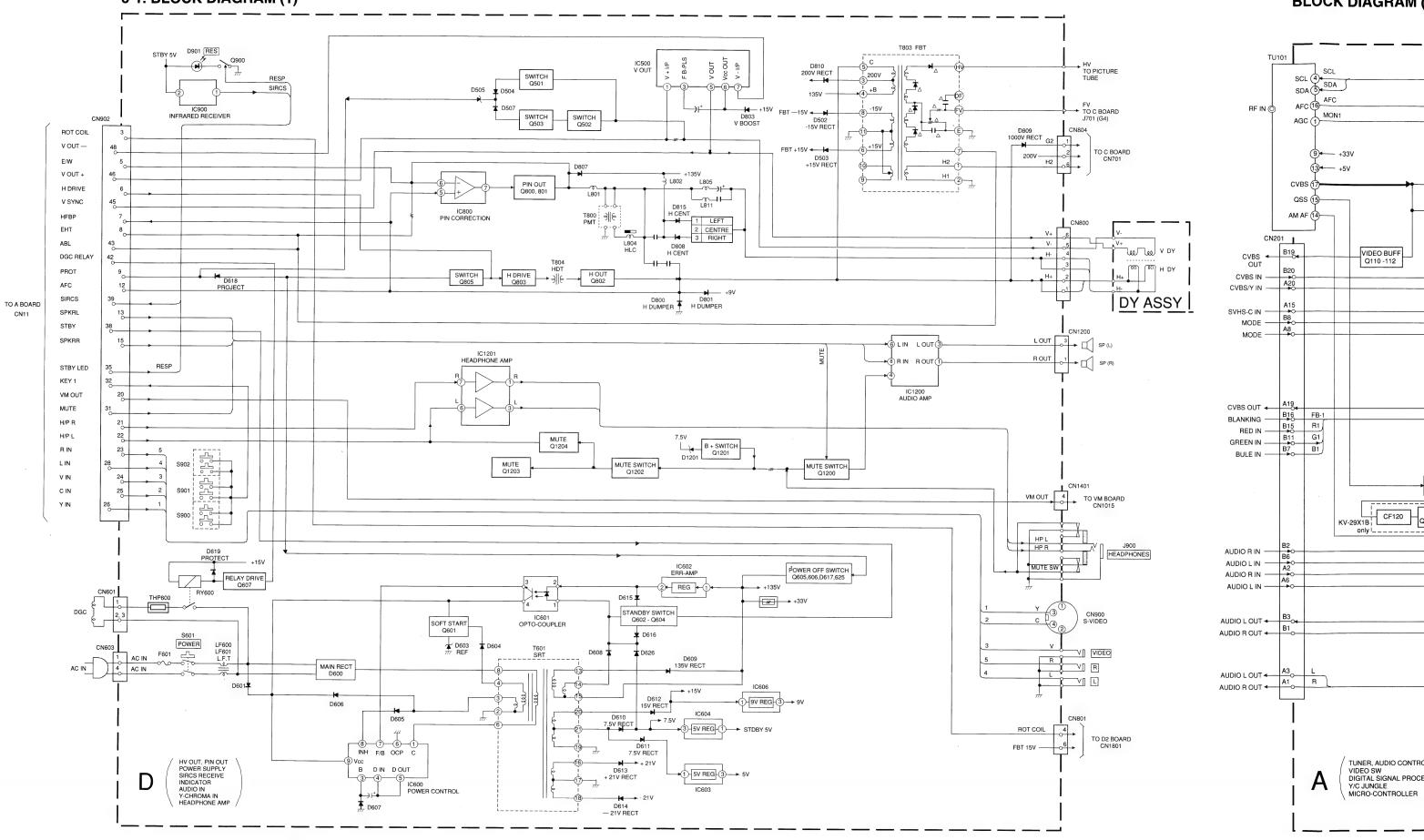


BLOCK DIAGRAM (2)

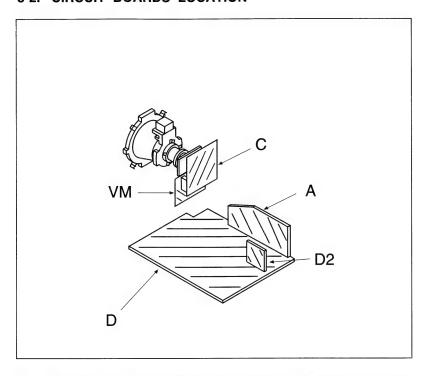


5-1. BLOCK DIAGRAM (1)

BLOCK DIAGRAM (



5-2. CIRCUIT BOARDS LOCATION



5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note:

• All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytic and tantalums.

- All resistors are in ohms.
- k = 1000 , M = 1000K
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch: 5 mm Rating electrical power ¼ W

- : nonflammable resistor.
 : internal component.
- panel designation, or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- ± : earth ground.
 † : earth chassis.
- # : earth chassi • # : no mounted.

Note: Les composants identifies par une trame et une marque 🛧 sont critiques pour la securite.

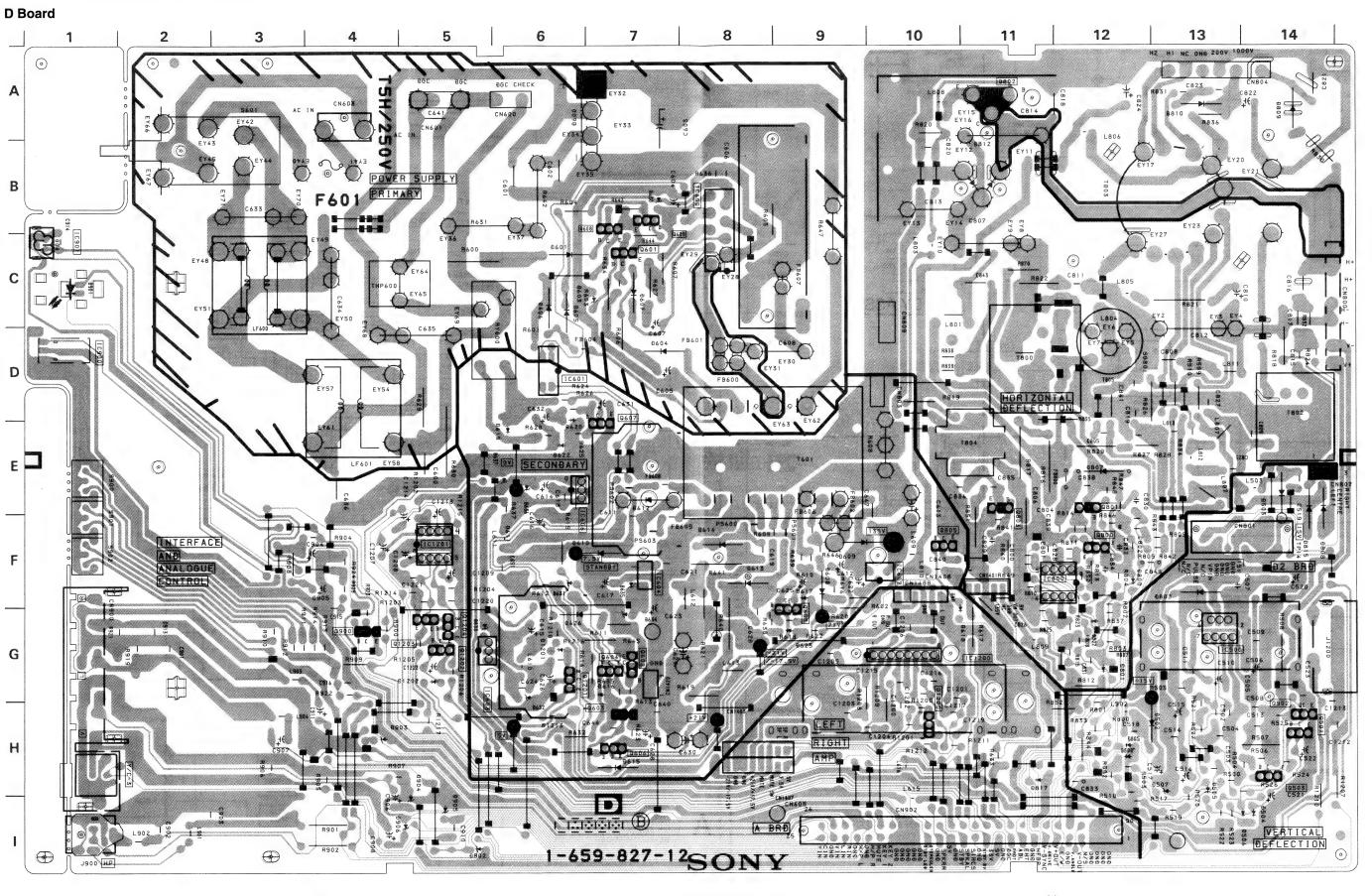
Ne les remplacer que par une piece portant le numero specifie.

Reference information

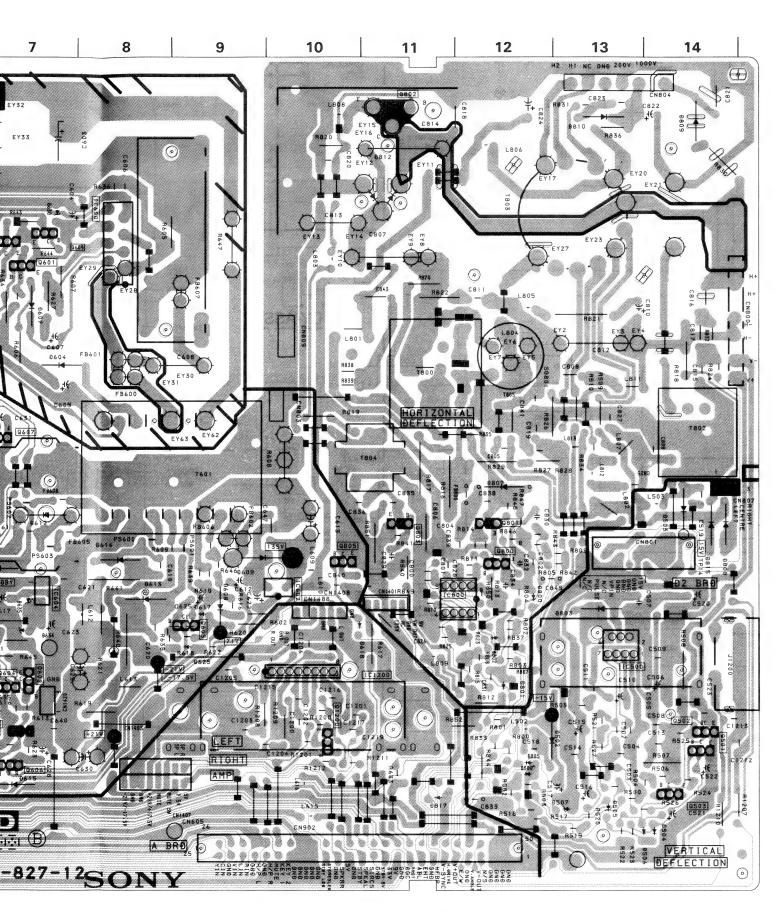
: RN	METAL FILM
: RC	SOLID
: FPRD	NONFLAMMABLE CARBON
: FUSE	NONFLAMMABLE FUSIBLE
: RS	NONFLAMMABLE METAL OXIDE
: RB	NONFLAMMABLE CEMENT
: RW	NONFLAMMABLE WIREWOUND
: ×	ADJUSTABLE RESISTOR
: LF-8L	MICRO INDUCTOR
: TA	TANTALUM
: PS	STYROL
: PP	POLYPROPYLENE
: PT	MYLAR
: MPS	METALIZED POLYESTER
: MPP	METALIZED POLYPROPYLENE
: ALB	BIPOLAR
: ALT	HIGH TEMPERATURE
: ALR	HIGH RIPPLE
	: RC : FPRD : FUSE : RS : RB : RW : X : LF-8L : TA : PS : PP : PT : MPS : MPP : ALB : ALT

- Readings are taken with a colour-bar signal input.
- Readings are taken with $10M\Omega$ digital multimeter.
- Voltages are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- All voltages are in V.
- Circled numbers are waveform references.
- : B+ bus.
- : signal path. (RF)

HV OUT, PIN OUT, POWER SUPPLY, CONTROL SW, AUDIO IN Y-CHROMA IN, HEADPHONE IN, SIRCS RECEIVE, INDICAITON



KV-29X1



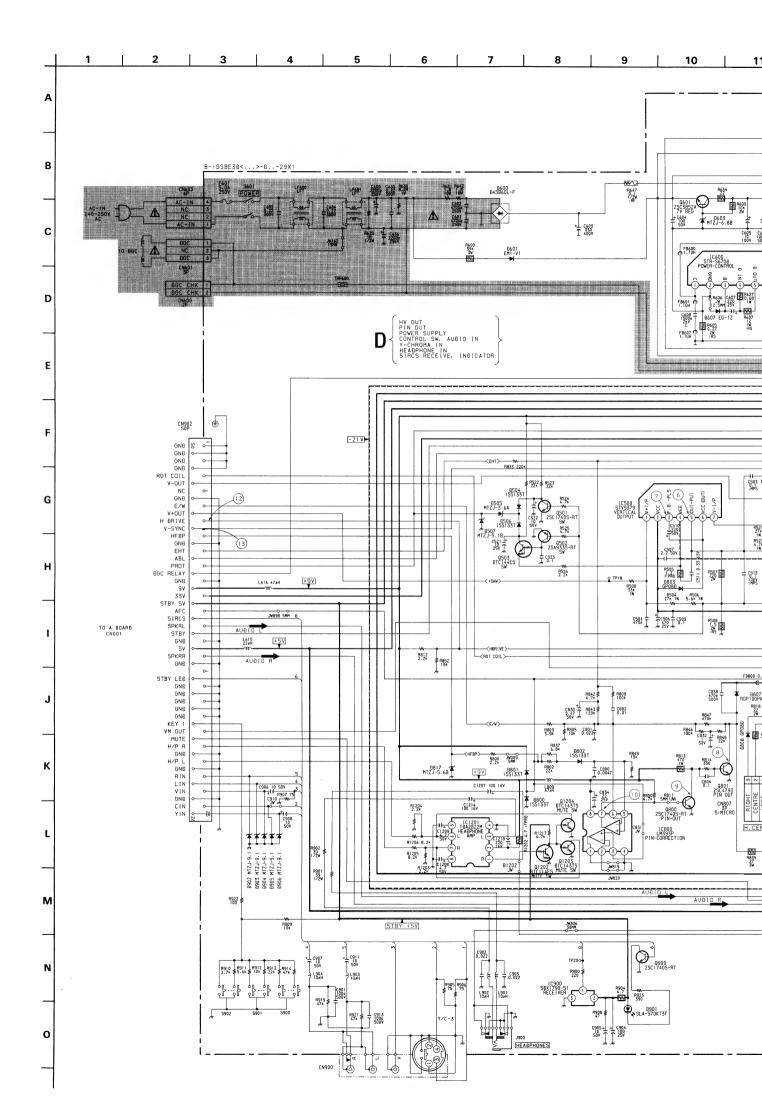


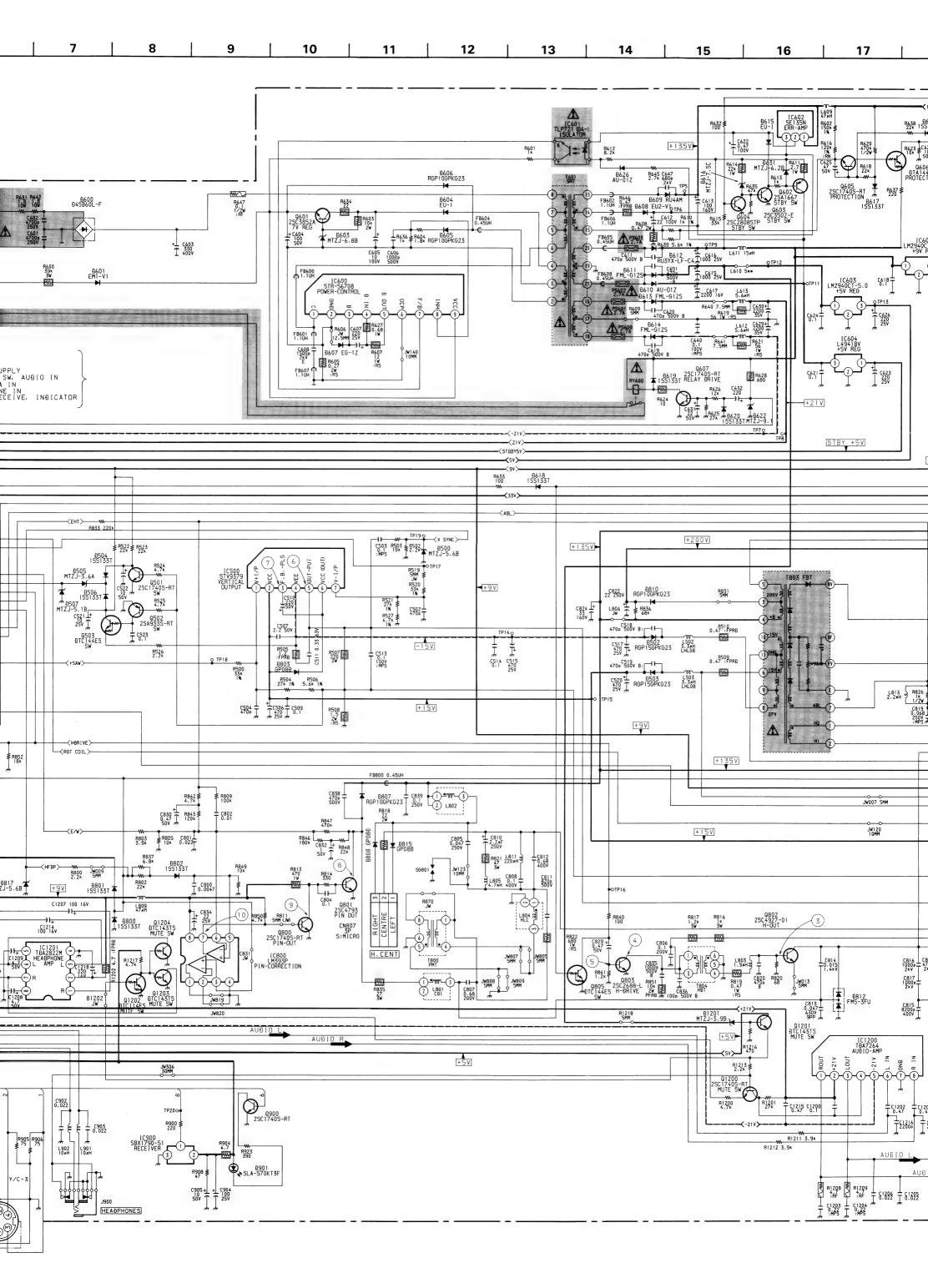
NOTE:

The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

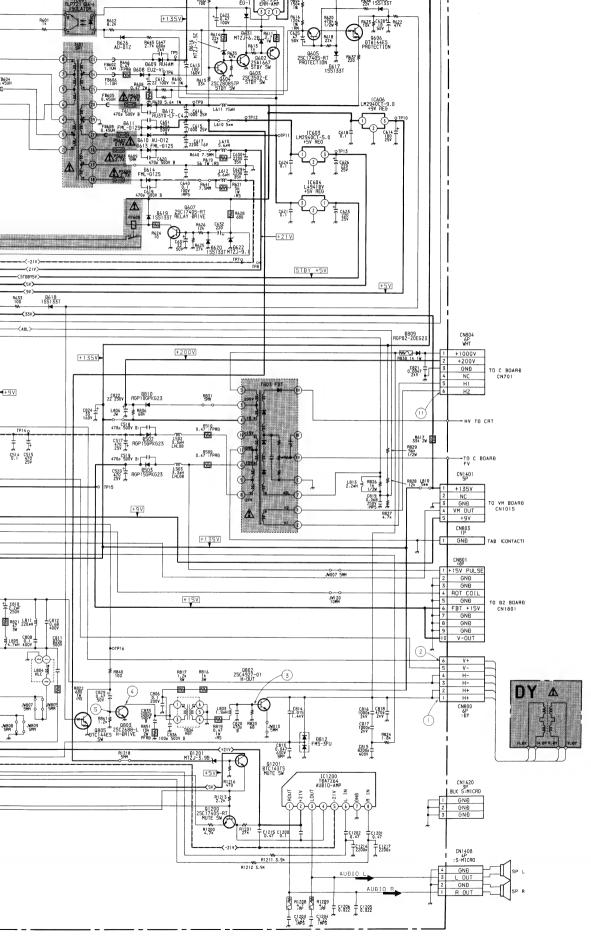
D BOARD

BOARD				
IC		DIODE		
IC500	G-13	D600	A-7	
IC600	B-8	D601	C-6	
IC601	D-6	D603	C-7	
IC602	F-10	D604	D-7	
IC603	G-5	D605	C-6	
IC604	F-7	D606	C-6	
IC606	E-6	D607	C-7	
IC800	F-12	D608	F-9	
IC900	D-1	D609	F-9	
IC1200	G-10	D610	F-7	
IC1201	F-5	D611	F-6	
		D612	E-7	
TRANSIS	STOR	D613	F-8	
Q501	H-14	D614	F-8	
Q502	H-14	D615	H-7	
Q503	H-14	D616	G-7	
Q601	C-7	D617	F-9	
Q602	G-7	D618	F-11	
Q603	H-7	D619	E-6	
Q604	G-7	D620	E-6	
Q605	F-9	D622	E-6	
Q606	H-7	D625	G-9	
Q607	D-7	D626	G-6	
Q800	F-12	D631	F-6	
Q801	E-12	D800	F-12	
Q802	A-11	D801	G-12	
Q803	E-11	D802	G-12	
Q805	F-10	D803	F-13	
Q900	G-4	D807	E-12	
Q1200	H-10	D808	E-14	
Q1201	G-6	D809	A-14	
Q1202	G-5	D810	A-13	
Q1203	G-5	D812	B-11	
Q1204	G-5	D815	E-14	
DIODE		D817	H-11	
D500	H-12	D901	C-1	
D502	H-13	D902	I-5	
D503	I-14	D903	H-4	
D504	H-11	D904	H-5	
D505	H-13	D905	I-5	
D506	I-14	D906	I-5	
D507	H-13	D1201	G-6	
		•		





13 | 14 16 15 17 18 19 20 21 €135V> 150LATOR 0615 | LC602 SE135N ERR-AMP 3 2 1 R602 150k 1% R623 C628 1 R672 R\$14 MTZJ+6.2B Z,7 B R\$14 MTZJ+6.2B Z,7 B R\$45 D602 F Z5BY SW 0606 OTA144ES PROTECTION R637 220 IC606 LM2940CT-9.0 +9V REG 1 1 1 1 1 1 1 1 1 R640 7.5MH C630+ 2200 56 W :RS 35V 1612 (529+1 5.64H 35V T STBY +5V -<ST88Y5V> --<5V>--90 B618 100 ISS133T .. -≺33V>--≺ABL>-0809 GP02-20EG23 +200V +1000V +200V +135V 0;8817 J GNÐ NC H1 22 250v RGP10GPKG23 CB24 F 470, C518 B: C517 RGP15GPKG23 3.3 PH 25V RGP15GPKG23 LHC08 38 Zv 📳 0.47 :FPRB 470p 500v B: <u>w</u> C520 + D503 L503 470 RGP15GPKG23 3.34H 25V RGP15GPKG23 HL008 CN1401 R828 L810 +135V NC GNÐ VM OUT R827 4.7k CN803 +135V GNĐ TAB (CONTACT) JW007 5NH



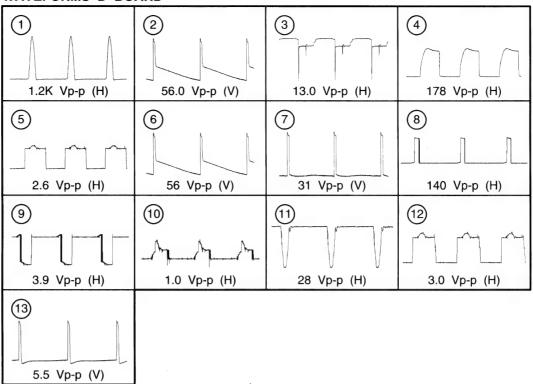
D BOARD TRANSISTOR VOLTAGE TABLE

Transistor Voltage Table				
Ref No	B Base	C Collector	E Emitter	
Q501	-0.1	0.2	-	
Q502	0.1	-5.8	-	
Q503	-5.8	-12.0	-12.0	
Q602	72.0	7.5	72.7	
Q603	0	72.0	-	
Q604	0.7	-	-	
Q605	0.5	-	0.3	
Q606	-	-	12.0	
Q607	-	12.0	-	
Q800	0.2	3.1	-	
Q801	0.3	17.0	-	
Q802	-0.2	143.3	-	
Q803	-0.6	99.8	-	
Q805	-	3.6	-	
Q900	-	5.4	-	
Q1200	2.9	21.5	4.6	
Q1201	3.4	5.0	3.0	
Q1202	2.8	-	-	

D BOARD IC VOLTAGE TABLE

DOA	BOARD IC VOLTAGE TABLE				
IC Voltage Table					
Ref No	Pin No	Voltage (V)			
	1	1.5			
	2	15.0			
	3	-12.3			
IC500	4	-14.0			
	5	0.1			
	6	15.2			
	7	1.4			
	1	170.0			
	2	-62.4			
	3	-62.6			
	4	-62.2			
IC600	5	-62.0			
	6	-62.6			
	7	-62.4			
	8	-62.0			
	9	-58.0			
	1	64.3			
IC601	2	63.0			
10001	3	-62.5			
	4	-58.6			
	1	135.0			
IC602	2	63.2			
	3	-0.1			
	3	0.9			
	5	1.5			
IC800	6	2.0			
	7	0.2			
	8	9.0			
	2	21.7			
IC1200	4	21.5			
	5	-21.7			
	1	4.0			
	2	9.0			
IC1201	3	4.0			
	5	0.5			
	8	0.5			

WAVEFORMS D BOARD

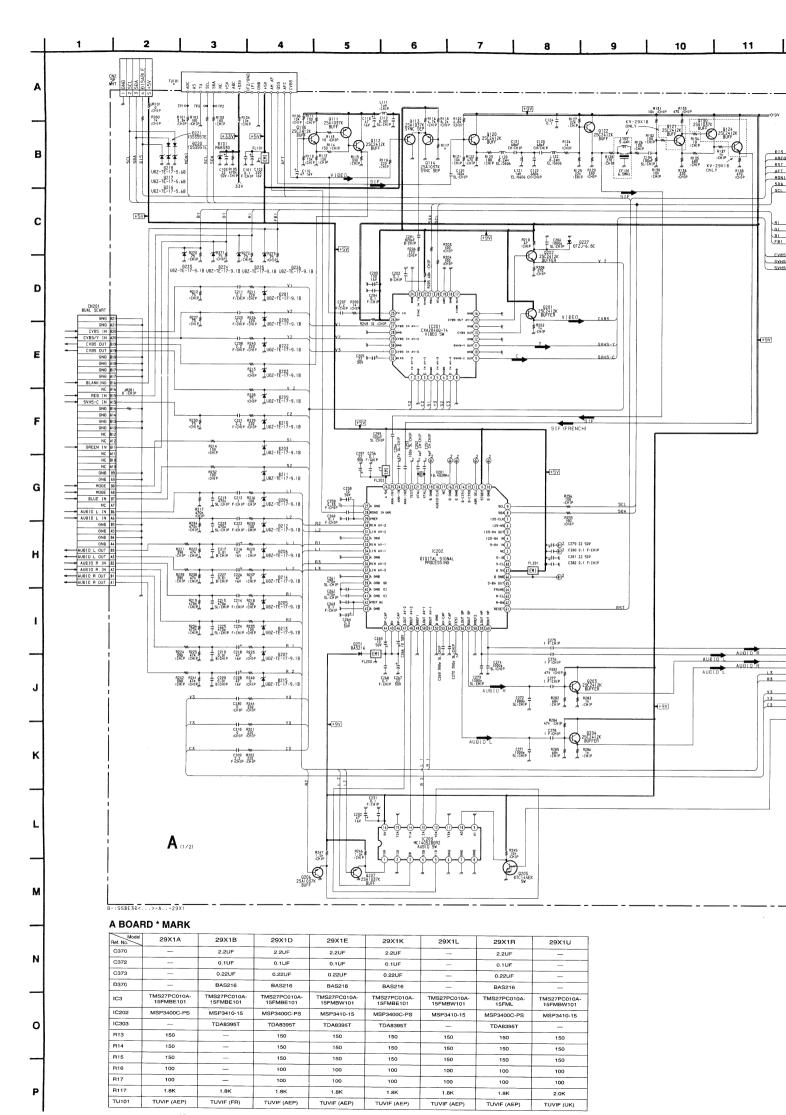


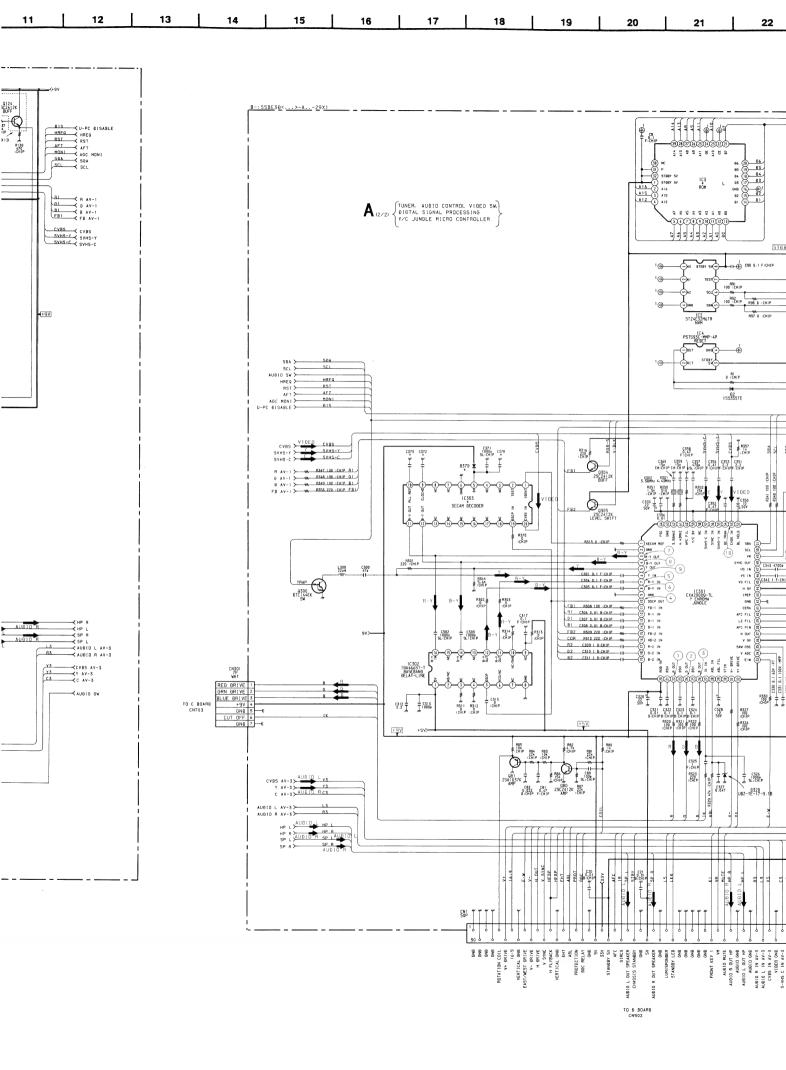
D BOARD
TRANSISTOR VOLTAGE TABLE

INANSI	TRANSISTOR VOLTAGE TABL					
Т	Transistor Voltage Table					
Ref No	B Base	C Collector	E Emitter			
Q501	-0.1	0.2	-			
Q502	0.1	-5.8	-			
Q503	-5.8	-12.0	-12.0			
Q602	72.0	7.5	72.7			
Q603	0	72.0	-			
Q604	0.7	-	-			
Q605	0.5	-	0.3			
Q606	-	-	12.0			
Q607	-	12.0	-			
Q800	0.2	3.1	-			
Q801	0.3	17.0	-			
Q802	-0.2	143.3	-			
Q803	-0.6	99.8	-			
Q805	-	3.6	-			
Q900	-	5.4	-			
Q1200	2.9	21.5	4.6			
Q1201	3.4	5.0	3.0			
Q1202	2.8	-	-			

D BOARD IC VOLTAGE TABLE

IC Voltage Table				
Ref No	Pin No	Voltage (V)		
	1	1.5		
	2	15.0		
	3	-12.3		
IC500	4	-14.0		
	5	0.1		
	6	15.2		
	7	1.4		
	1	170.0		
	2	-62.4		
	3	-62.6		
	4	-62.2		
IC600	5	-62.0		
	6	-62.6		
	7	-62.4		
	8	-62.0		
	9	-58.0		
	1	64.3		
IC601	2	63.0		
10001	3	-62.5		
	4	-58.6		
	1	135.0		
IC602	2	63.2		
	3	-0.1		
	3	0.9		
	5	1.5		
IC800	6	2.0		
	7	0.2		
	8	9.0		
	2	21.7		
IC1200	4	21.5		
	5	-21.7		
	1	4.0		
	2	9.0		
IC1201	3	4.0		
	5	0.5		
	8	0.5		





24 25 23 26 27 28 29 30 R12 470 R36 4.7* :CHIP R37 4.7* :CHIP R38 4.7* :CHIP R16 * R5T2
CHIP
L4 30 CH:CHIP
8MH. 16-(10) CZ ZZ 50V IC1 S0AS250MC5-GEG MICRO-CONTROLLER C18 0.1 F:CHI ¹@H⊢ 1@ C10 47s CH:CHIF L10 6.8sH :CHIF C11 47s CH:CHIF STOBY +5V 873 100 :CHIP MUTE 872 100 :CHIP RGR-5 871 100 :CHIP HREQ 870 100 :CHIP WR 869 100 :CHIP 16:9 STRY RS9 100 :CHIP W.
RST R88 100 :CHIP W.
RST R88 100 :CHIP W.
LS R32 100 :CHIP W.
KI R33 100 :CHIP W.
AFT R34 100 :CHIP W.
MONI R35 100 :CHIP W. R63 100 :CHIP BGC R62 100 :CHIP FN R61 100 :CHIP RXD R60 100 :CHIP TXD EN RXB TXB 100pF SL:CH(F 25CZ412X 12HIP 228 1CHIP B46 SZK CHIP R42 € R44 € 6.8k 6.8k R40 ≱ 5.6× R48 IM F:CHIP C44 00053 00053 00053 00053 T 678 * 100 * 101 P ¶ јиви јиви ивите-17-5.68 #12 JUBZ-TE-17-5.68 # R79 C43 R47 150∍ ₹2.2x C45 FICHIP STOBY +5V g 25c2412K R50 4.7k iCHIP BITC HEEK 25(2412K VH AMP C34B - R342 F 0.1 - CHIP : R52 4.7k :CHIP (133) (243) (243) (243) (243) (243) (243) (243) (244) (2 +9V

C334 0.01 B:CHIP

AUBIO L IN AV-3 CVBS IN AV-3 VIBEO GNB S-VHS C IN AV-3 S-VHS Y IN AV-3

R328 ≠ R346 ≠ R318 2.2M ≠ 3.9k ≠ 39k :CHIP :CHIP :CHIP 2962412K 25C72412K
BUFF
25C335
35CHP

STBY +5V

C347 TF:CHIP

A (1/2) BOARD IC VOLTAGE TABLE

	IC Voltag	ge Table
Ref No	Pin No	Voltage (V)
	13	4.4
	15	4.4
	20	3.5
	21	2.7
	22	4.9
C201	23	4.4
	24	0
	25	4.4
	26	8.8
	32	4.4
	4	2.8
	6-7	0.1
	8	3.0
	9	3.6
	11	4.7
	13	4.7
	20-21	2.4
	23	0.2
C202	25	1.5
10202	26	4.8
	28	3.8
	29	2.6
	39-42	3.8
	44	7.1
	45	8.0
	46	7.1
	47-48	3.8
	53-54	3.8

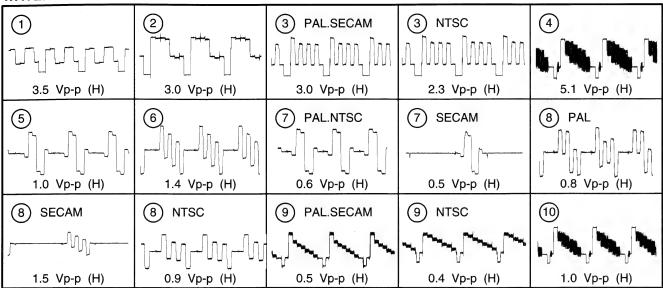
A (2/2) BOARD TRANSISTOR VOLTAGE TABLE

Transistor Voltage Table				
Ref No	B Base	C Collector	E Emitter	
Q1	3.7	4.8	3.1	
Q4	0.1	4.8	-	
Q5 .	0.7	4.8	4.0	
Q15	-	4.3	-	
Q16	4.3	0.2	-	
Q17	0.4	3.5	-	
Q18	3.5	0.7	-	
Q80	2.6	2.2	-	
Q81	2.4	-	3.0	
Q304	-	4.8	-	
Q305	-	4.8	-	
Q330	4.5	-	5.1	
Q331	6.3	8.8	5.7	
Q332	3.1	8.8	2.5	
Q1001	4.4	-	-	

A (1/2) BOARD TRANSISTOR VOLTAGE TABLE

THANSISTON VOLTAGE TABLE					
Т	ransistor V	oltage Tab	le		
Ref No	B Base	C Collector	E Emitter		
Q110	1.8	8.2	1.2		
Q112	1.5	8.8	0.8		
Q113	1.8	-			
Q114	5.4	6.0	-		
Q120	84.3	8.8	3.7		
Q121	1.5	5.4	0.9		
Q122	5.4	8.8	4.7		
Q124	-	8.8	-		
Q201	4.4	8.8	3.7		
Q202	4.4	8.8	3.7		

WAVEFORMS A BOARD

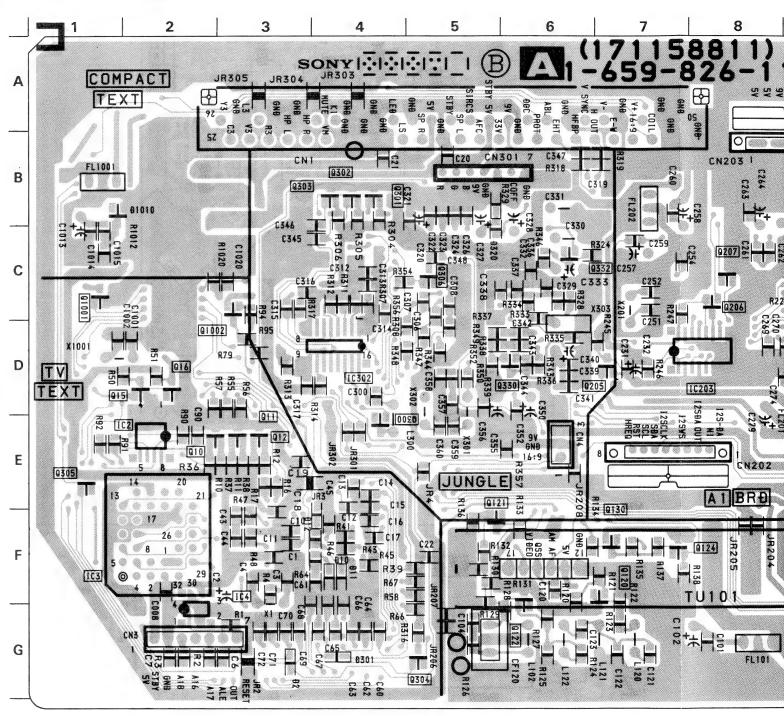


A (2/2) BOARD IC VOLTAGE TABLE

				IC Voltag	ge Table			
Ref No	Pin No	Voltage (V)	Ref No	Pin No	Voltage (V)	Ref No	Pin No	Voltage (V)
	2	3.6		5	3.6	10001	61	5.0
	3-4	4.8	l	6	5.0	IC301	62	7.6
	5	0.5	1	7-8	5.4		1	4.8
	7	4.8	İ	10	0.6		5	0.7
	9	4.8		12-14	5.4	IC302	9	4.8
	11	2.4	I	16	4.0	10302	11-12	3.0
	13	4.8	I	17-19	5.4	1	14	1.3
	14-15	2.3	I	20	8.8		16	1.3
	16-17	4.8	1	22-23	2.2		5	8.0
	48	4.0	I	24	2.0		3.2	10
	51	4.8	I	25	2.4		11	5.6
	52-53	2.4		26	2.0	IC303	0	19
	54	0.7		27	4.0		20	3.7
	55	0.2	I	28	6.6		4	0.2
	56-57	4.8		29	8.8		5	0.7
IC1	58	2.8	1	31-33	3.0		4	0.2
	59	3.5		34	4.0		5	0.7
	60	2.4		35	4.6		6	1.7
	62	0.7	IC301	36	8.8		7	1.8
	63	4.4		37	3.1		10	0.4
	65	4.8		38	3.4		11-12	4.8
	66	2.1		39	5.3		16	4.8
	67	2.0		40	4.2		17	0
	69-71	2.3		41	2.3	IC1001	21	4.8
	72	4.8		43	1.7	101001	23	3.0
	73	1.5		44	8.8		25	4.8
	74	1.2		45	2.5		56	0
	75-77	4.8		46	3.9		61	1.3
	79	0.2 .		47	3.0		62-63	1.4
	80	4.8		48	4.4	_	64	0
IC2	5-8	4.8		49	6.3		66	4.6
IC3	1	4.8		50-51	0.1		67	4.7
103	31-32	4.8		53	3.9		68	4.0
IC4	1	4.8		54	5.0			
104	3	4.8		55-56	4.2			
IC301	1	1.5		58-59	8.8			
10301	3-4	5.6		60	5.3			

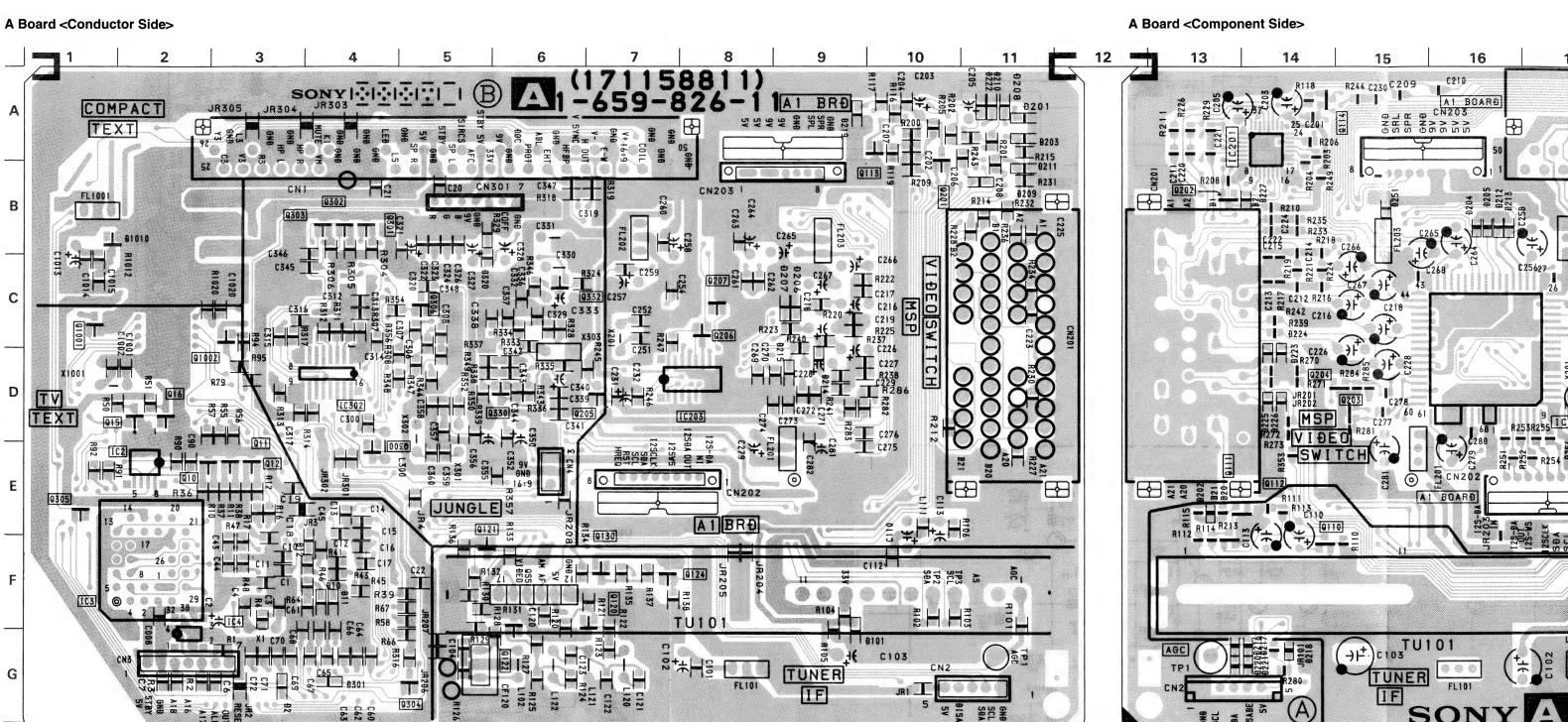


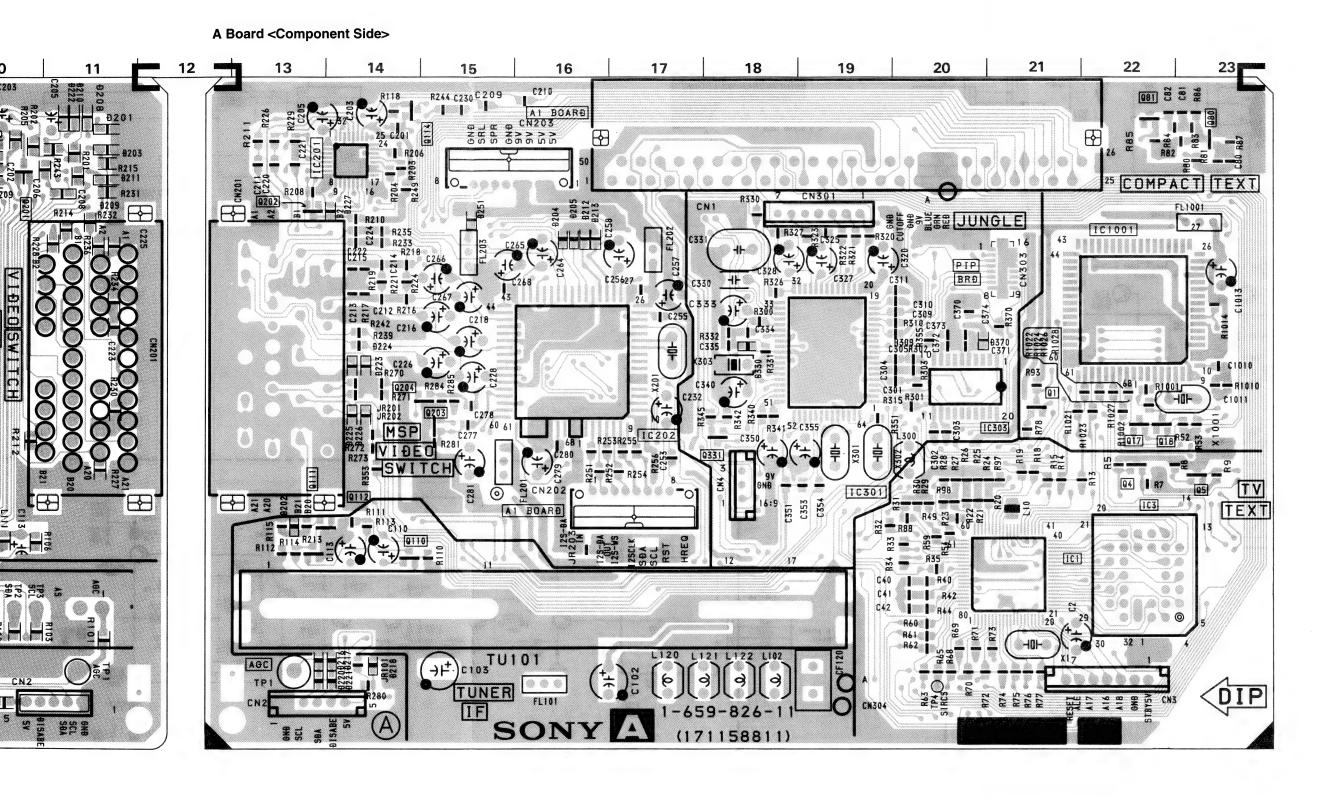
A Board < Conductor Side>





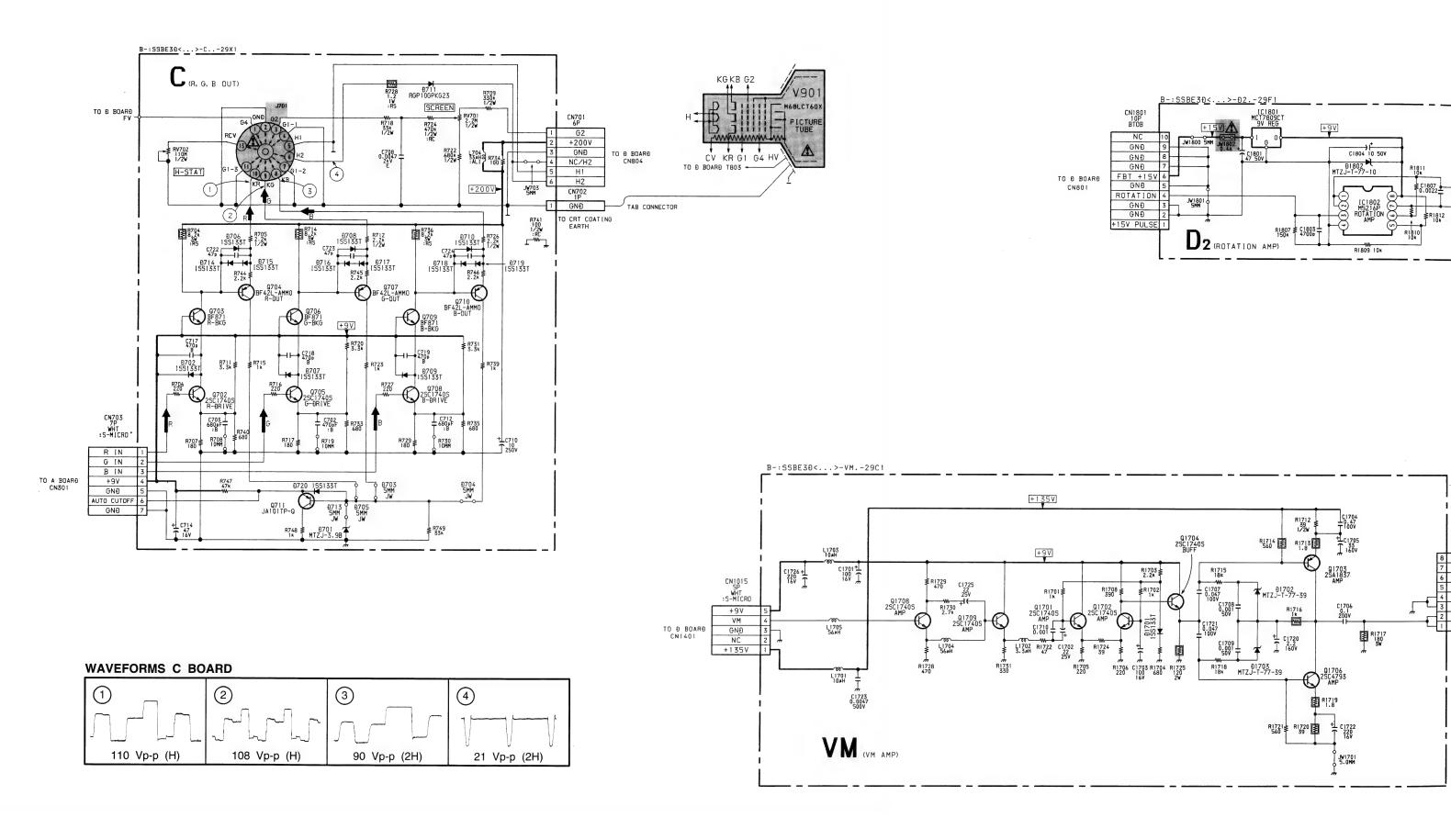
TUNER, AUDIO CONTROL VIDEO SW, DIGITAL SIGNAL PROCESSING
Y/C JUNGLE MICRO CONTROLLER





A BOARD

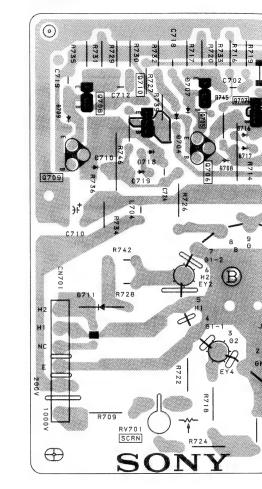
A BOARD					
IC		Q305	E-1		
IC1	F-21	Q306	C-5		
IC2	E-2	Q330	D-6		
IC3	F-2	Q331	D-18		
IC4	G-2	Q332	C-6		
IC201	A-14	Q1002	C-3		
IC202	C-16	DIC	DDE		
IC203	D-8	D2	G-3		
IC301	C-19	D10	F-10		
IC302	D-4	D11	F-10		
IC303	D-21	D12	F-4		
TRANS	SISTOR	D101	F-9		
Q1	D-21	D201	A-11		
Q4	E-22	D202	E-13		
Q5	E-23	D203	A-11		
Q10	E-2	D204	B-16		
Q11	E-3	D205	B-16		
Q15	D-2	D206	C-9		
Q16	D-2	D207	C-9		
Q17	D-22	D208	A-11		
Q18	D-23	D209	B-11		
Q80	A-23	D210	A-11		
Q81	A-22	D211	B-11		
Q110	F-14	D212	B-16		
Q111	E-14	D213	B-16		
Q112	E-14	D214	D-9		
Q113	A-10	D215	D-9		
Q114	A-14	D216 .	G-14		
Q120	F-7	D217	G-14		
Q121	F-5	D218	G-14		
Q122	F-6	D220	G-14		
Q124	F-7	D221	D-14		
Q130	F-7	D222	D-14		
Q201	B-10	D223	D-14		
Q202	B-13	D224	D-14		
Q203	D-15	D225	D-14		
Q204	D-15	D226	D-14		
Q205	D-7	D227	B14		
Q206	C-8	D251	B-15		
Q207	C-8	D320	C-5		
Q300	E-4	D370	C-21		
Q304	G-5				



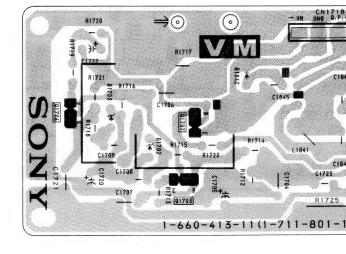


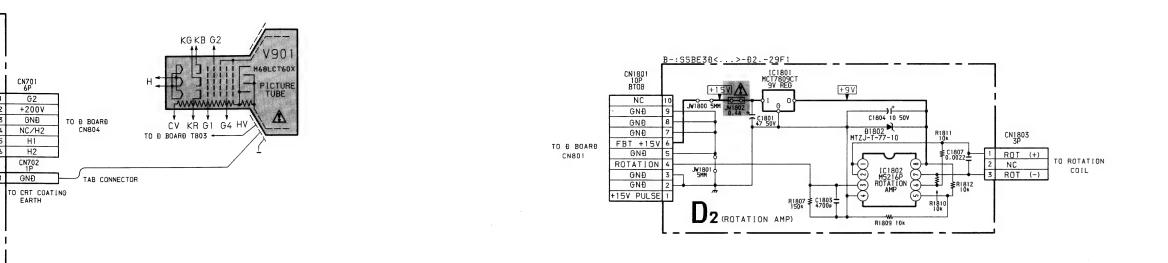


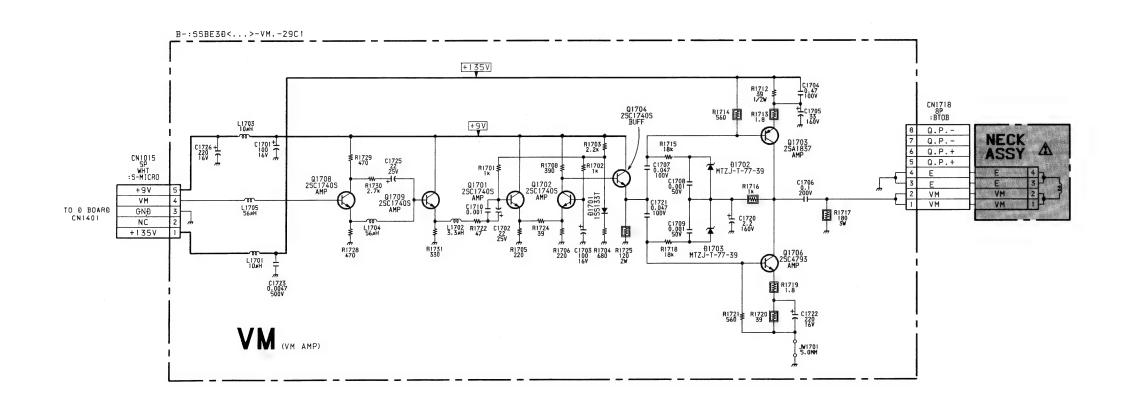




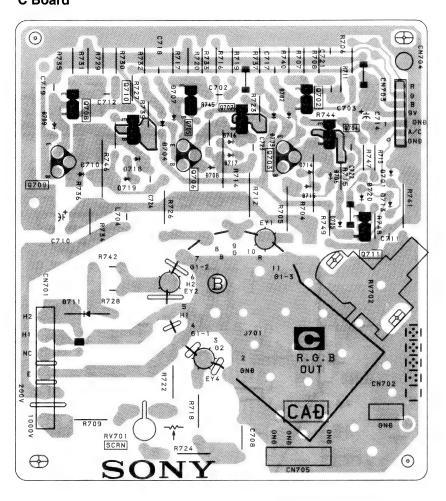
VM Board



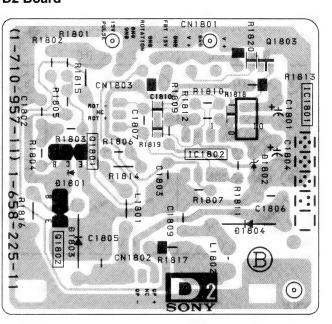




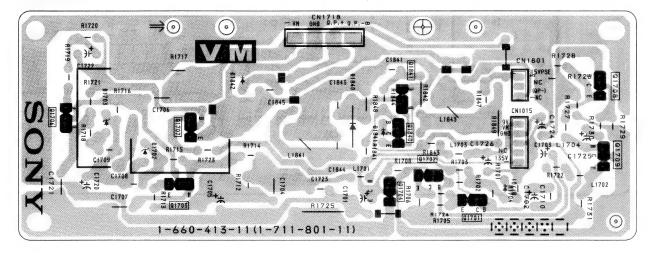




D2 Board



VM Board



C BOARD TRANSISTOR VOLTAGE TABLE

Transistor Voltage Table					
Ref No B C E Base Collector Emitter					
Q702	2.0	11.4	1.4		
Q703	12.0	168.3	11.4		
Q704	168.3	6.0	163.5		
Q705	1.7	11.4	1.2		
Q706	12.0	178.8	11.4		
Q707	178.2	6.2	173.8		
Q708	2.0	11.4	1.4		
Q709	12.0	168.3	11.4		
Q710	168.0	6.4	160.0		

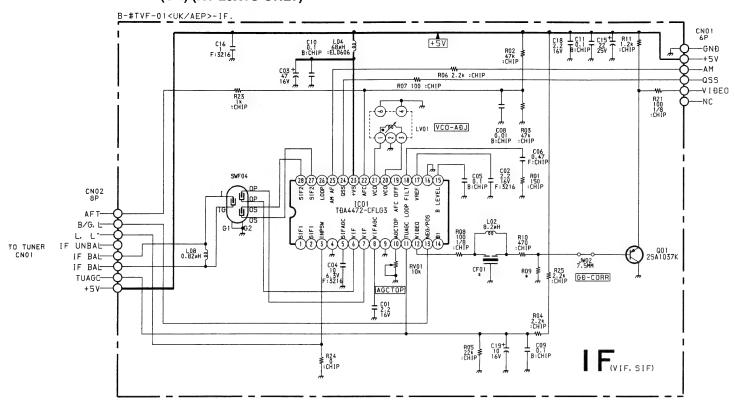
VM BOARD TRANSISTOR VOLTAGE TABLE

Transistor Voltage Table				
Ref No	B Base	C Collector	E Emitter	
Q1701	2.5	8.8	1.8	
Q1702	2.5	5.5	1.8	
Q1703	134.3	71.8	134.8	
Q1704	5.5	8.8	4.8	
Q1706	1.0	71.8	0.4	
Q1707	0.7	-	-	
Q1708	2.9	6.6	2.2	
Q1709	2.2	8.8	1.5	
Q1840	0.6	-	-	

D2 BOARD IC VOLTAGE TABLE

	IC Voltag	ge Table
Ref No	Pin No	Voltage (V)
	1-2	2.8
	3	3.0
IC1802	5-6	4.4
101002	7	6.2
	8	9.0

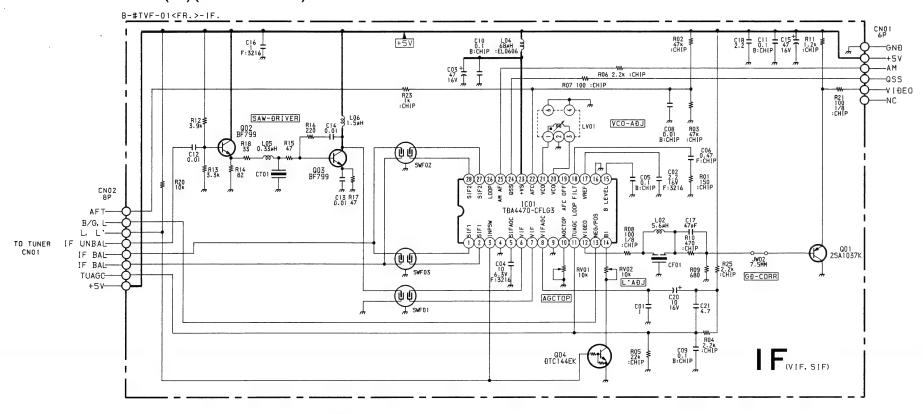
TUVIF (AEP) (KV-29X1A, 29X1D, 29X1E, 29X1K, 29X1L and 29X1R ONLY) TUVIF (UK) (KV-29X1U ONLY)



IF Board

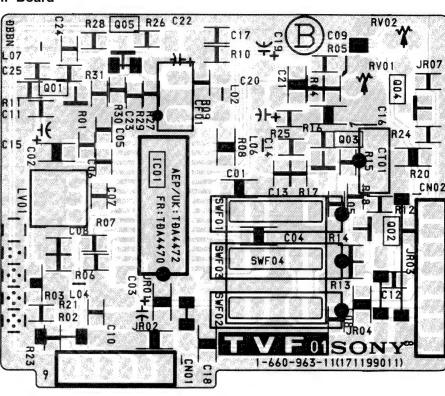
Model Ref. No.	29X1A	29X1D	29X1E	29X1K	29X1L	29X1R	29X1U
CF01	5.5MHz	5.5MHz	5.5MHz	5.5MHz	5.5MHz	5.5MHz	6.0MHz
R09	680MF	680MF	680MF	680MF	680MF	680MF	1K

TUVIF (FR) (KV-29X1B ONLY)

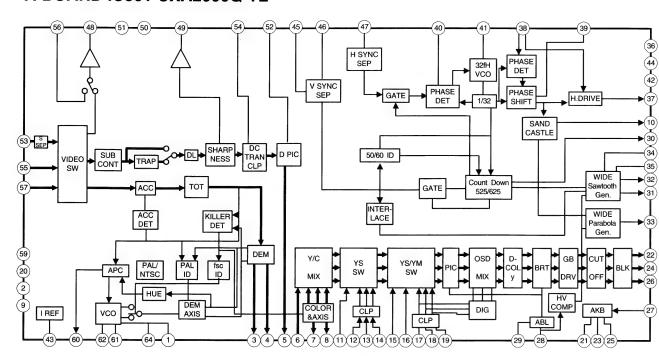


IF

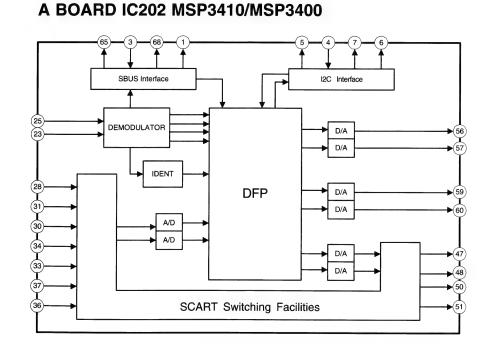
IF Board

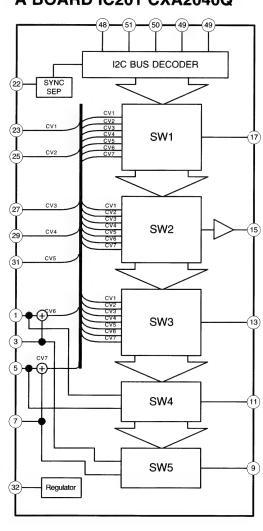


A BOARD IC301 CXA2000Q-TL

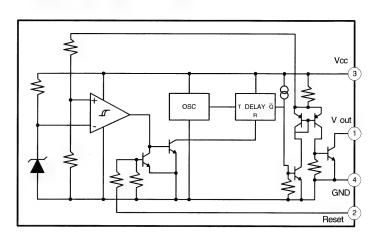


A BOARD IC201 CXA2040Q

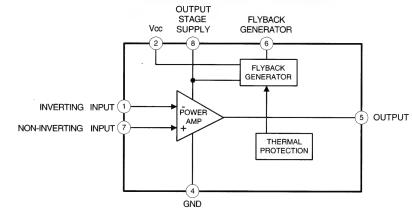




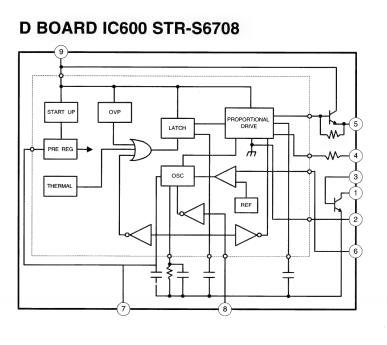
A BOARD IC4 PST593C

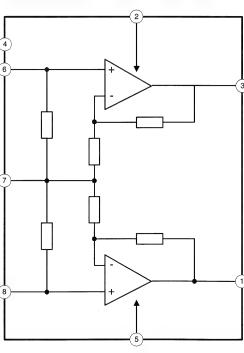


D BOARD IC500 STV9379



D BOARD IC1200 TDA7264





5-4. SEMICONDUCTORS

CXA2000Q-TL

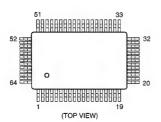
CXA2040Q-T4

A H

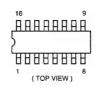
ш

8888888

(TOP VIEW)



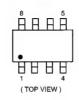
MC14052BDR2



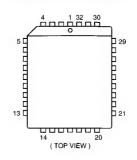
MSP3400C-PS

MSP3410-15

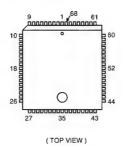
ST24E32M6TR

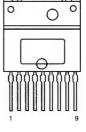


STR-S6708

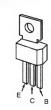


TMS27PC010A-15FML

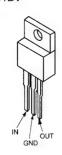




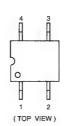
BF871-127



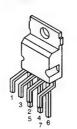
L4941BV



PST593C-MMP-4P



STV9379



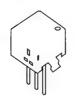
BF421L-AMMO JA101TP-Q 2SA733-K 2SA933AS 2SA933S 2SA1091-O 2SC3502-F 2SC2808STP-R



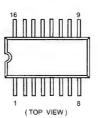
LM393P M5216P TDA2822M µPC393C



SBX1790-51



TDA4665T-T



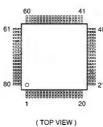
DTA144ES DTC114ES DTC143TS DTC144ES 2SC1740S-RT



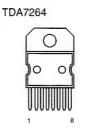
LM2940CT-5.0 LM2940CT LM2940T-9.0 MCT7809CT µPC2405HF



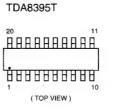
SDA5250M-GEG



SE135N



DTC144EK



2SA1037K 2SA1162-G 2SC2412K



1 V OUT 2 V IN 3 GND

TLP721(D4-)



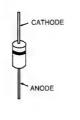
AU-01Z-V1 GP08D EG-1Z-V1 RGP02 EGP20G RGP10GPKG23 EL1Z RGP15GPKG23 EM1-V1 RU3YX EU-1-V1 RU4AM-T3 EU2-V1 RU4DS

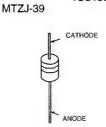
FML-G12S

RD3.9ESB2 MTZJ-3.6A RD5.1ESB2 MTZJ-3.9B MTZJ-5.1B RD5.6ESB2 RD6.2ESB2 MTZJ-5.6B MTZJ-6.2B RD6.8ESB2 RD7.5ESB2 MTZJ-6.8B RD10ESB2 MTZJ-7.5C MTZJ-9.1 RD39ES-B2 MTZJ-T-77-9.1A MTZJ-10 1SS133T-77

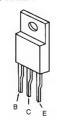
2SC2785-HFE







2SA1667 2SA1837 2SC3852A



BAS216 MA8330 DTZ6.8C 1SS355 DTZ9.1 UDZ-TE-17-5.6B DTZ33B UDZ-TE-17-9.1B

CATHODE

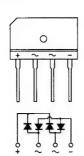


2SC2688-LK



D4SB60L

ANODE



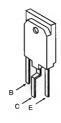
2SC4793



FMS-3FU



2SC4927-01



SECTION 6 EXPLODED VIEWS

NOTE:

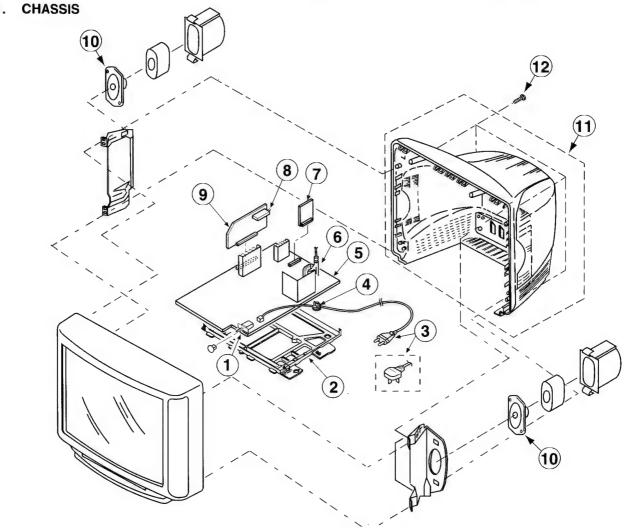
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remarks column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and marked 1 are critical for safety.

Replace only with the part number specified.

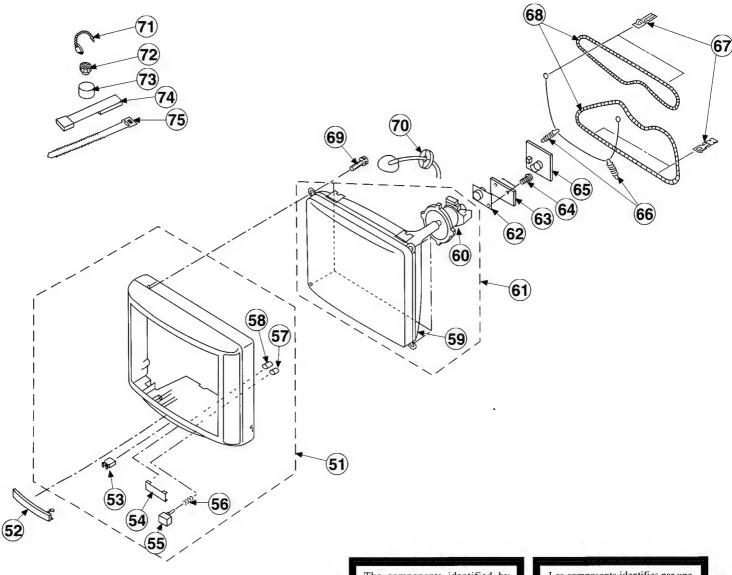
Les composants identifies par une trame et une marque / sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

6-1.



REF NO	PART NO	DESCRIPTION	REMARK	REF NO	PART NO	DESCRIPTION	REMARK
2 3 <u>.</u>	1-571-433-21 *4-203-315-01 1-751-680-11 1-690-270-21	2 CORD, POWER (WITH COL 2.5A/250V	ISE FILTER); 9X1A/29X1B/29X1D/ 9X1E)	9	1-693-338-11 1-693-340-11 1-693-339-11 *A-1632-423-A *A-1632-425-A	29X1R) TUNER/VIF (FR) (KV TUNER/VIF (UK) (KV A BOARD, COMPLETE A BOARD, COMPLETE	(KV-29X1A) (KV-29X1B)
4 5	1-776-240-11 *4-202-531-01 *A-1642-165-A 1-453-169-11 *A-1640-214-A	CORD POWER (FILTER) 3A/250V AC CORD LOCK (SC) D BOARD, COMPLETE TRANSFORMER ASSY, FL D2 BOARD, COMPLETE	(RV-29X1L/29X10) VBAČK (ÚX-1604A2)	10	*A-1632-422-A *A-1632-424-A *A-1632-426-A *A-1632-433-A *A-1632-427-A *A-1632-400-A	A BOARD, COMPLETE	(KV-29X1E) (KV-29X1K) (KV-29X1L) (KV-29X1R)
				10 11 12	1-544-727-11 X-4200-257-1 4-039-358-01	SPEAKER (7.5x13CM) COVER ASSY, REAR (8 SCREW (4x16), (+)	SC) BV TAPPING

6-2. PICTURE TUBE



The components identified by shading and marked _______ are critical for safety.

Replace only with the part number specified.

Les composants identifies par une trame et une marque A. sont critiques pour la securite.

Ne les remplacer que par une piece portant le numero specifie.

REF NO	PART NO	DESCRIPTION	REMARK	REF NO	PART NO	DESCRIPTION	REMARK
51 52 53 54 55 56 57 58	X-4200-258-1 4-203-364-01 4-047-464-01 4-203-365-01 4-203-362-01 4-202-964-01 *4-203-363-01 4-202-465-01 8-733-856-05 8-441-467-11	BEZNET ASSY DOOR, CONTROL CATCHER, PUSH WINDOW, ORNAMENTAL BUTTON, POWER SPRING GUIDE, LED LIGHT GUIDE, LED LIGHT PICTURE TUBE (SD-269) DEFURCTION YORE (Y29GX	53-58	67 69 70 71 72 73 74 75	4-202-415-01 1-406-807-11 4-036-188-01 4-202-693-01 4-308-870-00 1-452-094-00 1-452-032-00 X-4387-214-1 3-701-007-00	CLIP, DGC (29")	SK; 15MM Ø
60 A 61 A 62 A 63 64 65 66	8-733-856-71 8-453-005-11 *A-1644-070-A 4-639-357-01 *A-1638-082-A 4-200-433-01	ITC	59-60				

SECTION 7

ELECTRICAL PARTS LIST

The components identified by shading and marked $\hat{\mathcal{T}}_{\lambda}$ are critical for safety. Replace only with the part number specified.

Les composants identifies par une trame et une marque A sont critiques pour la securite. Ne les remplacer que par une

piece portant le numero specifie.

 Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

 All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS

- All resistors are in ohms
- F: nonflammable

When indicating parts by reference number, please include the board name.

CAPACITORS

COILS

MF: mF, PF: mmF

MMH: mH, µH: mH



			1 .	nomiamma						
REF.NO.	PART NO.	DESCRIPTION		REMARK	REF.NO.	PART NO.	DESCRIPTION			REMARK
	*A-1632-423-A	A BOARD, COMPLETE (KV-29X	(1A)		C112 C113	1-163-141-00 1-126-967-11	CERAMIC CHIP 0.001 ELECT 47MF	MF	5% 20%	50V 16V
	*A-1632-425-A	A BOARD, COMPLETE (KV-29X	(1B)							
	*A-1632-422-A	A BOARD, COMPLETE (KV-29X	(1D)		C120 C121		CERAMIC CHIP 100PF CERAMIC CHIP 68PF		5% 5%	50V 50V
		*******			C122	1-163-137-00	CERAMIC CHIP 680PF		5%	50V
	*A-1632-424-A	A BOARD, COMPLETE (KV-29)	K1E)		C123 C124	1-163-113-00 1-137-399-11	CERAMIC CHIP 68PF FILM 0.1MF		5% 5%	50V 50V
	*A-1632-426-A	A BOARD, COMPLETE (KV-29)	K1K)							
	-1622-122-*	**************** A BOARD, COMPLETE (KV-29)	¥1 T.\		C201 C202		CERAMIC CHIP 820PF CERAMIC CHIP 0.1MF		10% 10%	50V 25V
	"H-1032-433-H	***********	ALD)		C203	1-126-933-11			20%	16V
	*A-1632-427-A	A BOARD, COMPLETE (KV-29)	X1R)		C204		CERAMIC CHIP 0.1MF			25V
	*A-1632-400-A	***************** A BOARD, COMPLETE (KV-29)	х1п)		C205	1-126-965-11	ELECT 22MF		20%	50V
	11 1032 100 11	*******	,		C206		CERAMIC CHIP 0.001		5%	50V
	4 770 707 44	## PT ##			C207		CERAMIC CHIP 2.2MF CERAMIC CHIP 2.2MF			16V 16V
	1-750-797-11	SOCKET, PLCC			C208 C209		CERAMIC CHIP 2.2MF			16V
	< CAR	PACITOR >			C210	1-216-295-00		5%	1/10W	
C1	1-163-038-00	CERAMIC CHIP 0.1MF		25V	C211	1-164-505-11	CERAMIC CHIP 2.2MF			16V
C2	1-126-965-11		20%	50V	C212	1-164-346-11	CERAMIC CHIP 1MF			16V
C3	1-163-104-00	CERAMIC CHIP 30PF	5%	50V	C213		CERAMIC CHIP 470PF		5%	50V
C4		CERAMIC CHIP 30PF	5%	50V	C214		CERAMIC CHIP 1MF		EQ.	16V
C8	1-163-038-00	CERAMIC CHIP 0.1MF		25V	C215	1-163-133-00	CERAMIC CHIP 470PF		5%	50V
C10	1-163-243-11	CERAMIC CHIP 47PF	5%	50V	C216	1-126-967-11			20%	16V
C11	1-163-243-11	CERAMIC CHIP 47PF	5%	50V	C217		CERAMIC CHIP 0.01M	F	10%	50V
C15 C18	1-163-133-00	CERAMIC CHIP 470PF CERAMIC CHIP 0.1MF	5%	50V 25V	C218 C219	1-126-967-11	ELECT 47MF CERAMIC CHIP 0.01M	R.	20% 10%	16V 50V
C19	1-163-989-11	CERAMIC CHIP 0.1MF	10%	25V	C220		CERAMIC CHIP 2.2MF		10.0	16V
C20	1 164 000 11	CERAMIC CHIP 0.01MF	10%	50V	C221	1_164_505_11	CERAMIC CHIP 2.2MF			16V
C21		CERAMIC CHIP 0.01MF	10%	50V	C222		CERAMIC CHIP 1MF			16V
C22	1-163-117-00	CERAMIC CHIP 100PF	5%	50V	C223	1-163-133-00	CERAMIC CHIP 470PF		5%	50V
C40	1-163-989-11	CERAMIC CHIP 0.033MF	10%	25V	C224	1-164-346-11	CERAMIC CHIP 1MF			16V
C41	1-163-989-11	CERAMIC CHIP 0.033MF	10%	25V	C225	1-163-133-00	CERAMIC CHIP 470PF		5%	50V
C42	1-163-989-11	CERAMIC CHIP 0.033MF	10%	25V	C226	1-126-967-11			20%	16V
C43		CERAMIC CHIP 150PF	5%	50V	C227		CERAMIC CHIP 0.01M	F	10%	50V
C44 C45		CERAMIC CHIP 0.033MF CERAMIC CHIP 0.1MF	10%	25V 25V	C228 C229	1-126-967-11	ELECT 47MF CERAMIC CHIP 0.01M	P	20% 10%	16V 50V
C80		CERAMIC CHIP 100PF	5%	50V	C230	1-216-295-00		5%	1/10W	
C81		CERAMIC CHIP 0.47MF		25V	C231	1-163-038-00	CERAMIC CHIP 0.1MF			25V
C82		CERAMIC CHIP 0.47MF	10%	50V	C232	1-126-967-11			20%	16V
C90		CERAMIC CHIP 0.1MF		25V	C251	1-163-087-00	CERAMIC CHIP 4PF		0.25PF	7 50V
C101		CERAMIC CHIP 0.1MF		25V	C252	1-163-087-00			0.25PF	
C102	1-126-934-11	ELECT 220MF	20%	16V	C253	1-163-117-00	CERAMIC CHIP 100PF		5%	50V
C103	1-126-965-11		20%	50V	C254	1-163-109-00	CERAMIC CHIP 47PF		5%	50V
C104 C110	1-163-117-00		5%	50V	C255	1-163-117-00			5%	50V 25V
CIIO	1-126-967-11	ELECT 47MF	20%	16V	C256	1-163-038-00	CERAMIC CHIP 0.1MF			43V



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REF.NO.	PART NO.	DESCRIPTION	1	F	REMARK	REF.NO.	PART NO.	DESCRIPTION		REMARK
C257 C258	1-126-965-11 1-126-964-11			20% 20%	50V 50V	C337 C338	1-163-009-11 1-164-346-11	CERAMIC CHIP 0.001MF CERAMIC CHIP 1MF	10%	50V 16V
C259 C260 C261 C262 C263	1-164-336-11 1-163-038-00 1-163-133-00 1-163-133-00 1-163-038-00	CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	0.1MF 470PF 470PF	5% 5%	25V 25V 50V 50V 25V	C339 C340 C341 C342 C343	1-164-232-11 1-126-933-11 1-164-005-11 1-164-346-11 1-163-017-00	CERAMIC CHIP 0.01MF ELECT 100MF CERAMIC CHIP 0.47MF CERAMIC CHIP 1MF CERAMIC CHIP 0.0047MF	10% 20%	50V 16V 25V 16V 50V
C264 C265 C266 C267 C268	1-126-962-11 1-126-964-11 1-126-964-11	ELECT ELECT ELECT	3.3MF 10MF 10MF 22MF	20% 20% 20% 20%	50V 50V 50V 50V 25V	C344 C347 C348 C350 C351	1-163-117-00 1-164-005-11 1-163-038-00 1-126-964-11 1-164-505-11	CERAMIC CHIP 100PF CERAMIC CHIP 0.47MF CERAMIC CHIP 0.1MF ELECT 10MF CERAMIC CHIP 2.2MF	5% 20%	50V 25V 25V 50V 16V
C269 C270 C271 C272 C273	1-163-131-00 1-163-131-00 1-163-141-00 1-163-141-00 1-163-141-00	CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	390PF 0.001MF 0.001MF	5% 5% 5% 5% 5%	50V 50V 50V 50V 50V	C352 C353 C354 C355 C356	1-164-005-11 1-164-505-11 1-164-005-11 1-126-965-11 1-164-232-11	CERAMIC CHIP 0.47MF CERAMIC CHIP 2.2MF CERAMIC CHIP 0.47MF ELECT 22MF CERAMIC CHIP 0.01MF	20% 10%	25V 16V 25V 50V
C274 C275 C276 C277 C278		CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	1MF 1MF 1MF		50V 16V 16V 16V 16V	C357 C358 C359 C360 C370	1-163-231-11 1-163-231-11	CERAMIC CHIP 15PF	5% 5% 5%	50V 25V 50V 50V 16V
C279 C280 C281 C282 C300	1-126-965-11 1-163-038-00 1-126-965-11 1-163-038-00 1-163-109-00	CERAMIC CHIP	22MF 0.1MF	20% 20% 5%	50V 25V 50V 25V 50V	C371 C372 C373	1-163-141-00 1-164-004-11 1-164-489-11	CERAMIC CHIP 0.001MF CERAMIC CHIP 0.1MF (KV-29X1B/29X1D/29X CERAMIC CHIP 0.22MF	5% 10% (1E/29X1 10%	50V 25V IK/29X1R) 16V
C301 C302 C303 C304	1-163-038-00 1-163-141-00 1-163-141-00 1-163-038-00	CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	0.001MF 0.001MF 0.1MF	5% 5%	25V 50V 50V 25V	CF120	< FIL	(KV-29X1B/29X1D/29X TER > TRAP, CERAMIC (6.5MHz) (
C305 C306 C307 C308 C309 C310	1-164-232-11	CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	0.01MF 0.01MF 0.01MF 1MF	10% 10% 10%	50V 50V 50V 50V 16V 16V	CN201	1-695-302-11 *1-568-880-51 1-766-296-11	NECTOR > CONNECTOR, BOARD TO BOAR PIN, CONNECTOR 5P CONNECTOR, DUAL SCART PIN, CONNECTOR 7P	D 50P	
C311 C312 C313 C315 C317	1-164-505-11 1-163-141-00 1-216-295-00	CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP METAL GLAZE CERAMIC CHIP	2.2MF 0.001MF 0 5%	5% 1/10W	16V 16V 50V 25V	D2 D10 D11	8-719-158-15	DIODE 1SS355 DIODE RD5.6S-B DIODE RD5.6S-B		
C319 C320 C321 C322 C323	1-126-965-11 1-164-232-11 1-164-004-11	CERAMIC CHIP ELECT CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	22MF 0.01MF 0.1MF	10% 20% 10% 10% 10%	50V 50V 50V 25V 25V	D12 D101 D201 D202 D203	8-719-977-81 8-719-977-22 8-719-977-22 8-719-977-22	DIODE DTZ9.1 DIODE DTZ9.1 DIODE DTZ9.1		
C324 C325 C326 C327 C328	1-164-346-11		1MF	10% 5% 5% 20%	25V 16V 50V 50V 50V	D204 D205 D206 D207 D208	8-719-977-22 8-719-977-22 8-719-977-22 8-719-977-22 8-719-977-22	DIODE DTZ9.1 DIODE DTZ9.1 DIODE DTZ9.1 DIODE DTZ9.1		
C329 C330 C331 C332 C333	1-130-777-00 1-137-581-11	FILM CERAMIC CHIP	0.1MF 0.1MF 0.01MF	10% 5% 5% 10% 20%	50V 63V 100V 50V 16V	D209 D210 D211 D212 D213	8-719-977-22 8-719-977-22 8-719-977-22 8-719-977-22 8-719-977-22	DIODE DTZ9.1 DIODE DTZ9.1 DIODE DTZ9.1		
C334 C335 C336	1-164-232-11 1-164-004-11	CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	0.01MF 0.1MF	10% 10% 10%	50V 25V 50V	D214 D215 D216	8-719-977-22 8-719-977-22	DIODE DTZ9.1		



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
D217 D218 D220 D221	8-719-158-15 8-719-988-62	DIODE RD5.6S-B DIODE RD5.6S-B DIODE 1SS355 DIODE 1SS355		Q80 Q81 Q110 Q111 Q112	8-729-216-22 8-729-920-74 8-729-216-22	TRANSISTOR 2SC241 TRANSISTOR 2SC241 TRANSISTOR 2SC241 TRANSISTOR 2SC241 TRANSISTOR 2SC241	52-G 12K-QR 52-G
D222 D223 D224 D225 D226	8-719-977-22 8-719-977-22 8-719-977-22	DIODE DTZ9.1 DIODE DTZ9.1 DIODE DTZ9.1 DIODE DTZ9.1 DIODE DTZ9.1 DIODE DTZ9.1		Q113 Q114 Q120 Q121	8-729-216-22 8-729-216-22 8-729-920-74 8-729-920-74	TRANSISTOR 2SA116 TRANSISTOR 2SA116 TRANSISTOR 2SC241 TRANSISTOR 2SC241	52-G 52-G 12K-QR 12K-QR (KV-29X1B)
D227 D251 D320 D370	8-719-047-16 8-719-977-22	DIODE DTZ6.8C DIODE BAS216 DIODE DTZ9.1 DIODE BAS216 (KV-29X1B/29X1D/2	9X1E/29X1K/29X1R)	Q122 Q124 Q130 Q201 Q202 Q202	8-729-920-74 8-729-216-22 8-729-920-74 8-729-920-74	TRANSISTOR 2SC241 TRANSISTOR 2SC241 TRANSISTOR 2SC241 TRANSISTOR 2SC241 TRANSISTOR 2SC241 TRANSISTOR 2SC241	12K-QR (KV-29X1B) 52-G (KV-29X1B) 12K-QR 12K-QR
	< ENC	CAPSULATED FILTER >		-			
FL101 FL201 FL202 FL203	1-236-071-11 1-236-071-11	ENCAPSULATED COMPONENT ENCAPSULATED COMPONENT ENCAPSULATED COMPONENT ENCAPSULATED COMPONENT		Q204 Q205 Q206 Q207 Q300	8-729-901-01 8-729-216-22 8-729-216-22	TRANSISTOR 2SC241 TRANSISTOR DTC144 TRANSISTOR 2SA116 TRANSISTOR DTC144	1EK 52-G 52-G
	< IC	>		Q304		TRANSISTOR 2SC241	
IC1 IC2		IC SDA5250M-GEG IC ST24E32M6TR		Q305 Q306 Q330 Q331	8-729-920-74 8-729-216-22	TRANSISTOR 2SC241 TRANSISTOR 2SC241 TRANSISTOR 2SA110 TRANSISTOR 2SC241	12K-QR 52-G
IC3	8-759-428-13	IC TMS27PC010A-15FMBE1 (KV-29X1A/2	01 9X1B/29X1D/29X1K)	0332	8-729-920-74	TRANSISTOR 2SC241	12K-OR
	8-759-428-12	IC TMS27PC010A-15FMBW1	01 9X1E/29X1L/29X1U)	Q1002		TRANSISTOR 2SA116	
	8-759-167-62	IC TMS27PC010A-15FML (< RES	SISTOR >	
IC4 IC201 IC202	8-752-076-06 8-759-376-56	IC MSP3410-15	9X1D/29X1K/29X1R)	JR2 JR101 JR201 JR206 JR207	1-216-296-00 1-216-295-00 1-216-295-00 1-216-295-00 1-216-295-00	METAL GLAZE 0	5% 1/8W 5% 1/10W 5% 1/10W 5% 1/10W 5% 1/10W
IC203 IC301	8-752-076-09	IC MC14052BDR2 IC CXA2000Q-TL	9X1E/29X1L/29X1U)	JR304 JR305	1-216-296-00 1-216-296-00	METAL GLAZE 0	5% 1/8W 5% 1/8W 5% 1/10W
IC302 IC303	8-759-251-56		9X1E/29X1K/29X1R)	R1 R2 R3 R4	1-216-013-00	METAL GLAZE 100 METAL GLAZE 100 METAL GLAZE 33	0 5% 1/10W 0 5% 1/10W 5% 1/10W
	< CO			R5	1-216-065-00		7K 5% 1/10W
L10 L102 L111 L120 L121	1-408-406-00	INDUCTOR CHIP 1UH INDUCTOR 8.2UH	KV-29X1B)	R7 R8 R9 R10 R11	1-216-041-00 1-216-065-00 1-216-041-00 1-216-041-00 1-216-041-00	METAL GLAZE 4.7 METAL GLAZE 470 METAL GLAZE 470	7K 5% 1/10W 0 5% 1/10W 0 5% 1/10W
L122 L300	1-408-408-00 1-408-607-31			R12 R13	1-216-041-00 1-216-029-00	METAL GLAZE 150 (KV-29X1A/29) 5% 1/10W 9X1D/29X1E/29X1K/29X1L/
	< TR	ANSISTOR >				29X1R/29	9X1U)
Q1 Q4 Q5 Q10 Q11	8-729-920-74 8-729-920-74 8-729-216-22	TRANSISTOR 2SC2412K-QE TRANSISTOR 2SC2412K-QE TRANSISTOR 2SC2412K-QE TRANSISTOR 2SA1162-G TRANSISTOR 2SA1162-G	}	R14	1-216-029-00	29X1R/29 METAL GLAZE 150 (KV-29X1A/29	9X1D/29X1E/29X1K/29X1L/ 9X1U) 0 5% 1/10W 9X1D/29X1E/29X1K/29X1L/
Q12 Q15 Q16 Q17 Q18	8-729-901-01 8-729-901-01 8-729-901-01	TRANSISTOR 2SA1162-G TRANSISTOR DTC144EK TRANSISTOR DTC144EK TRANSISTOR DTC144EK TRANSISTOR DTC144EK		R16	1-216-025-91	29X1R/29 METAL GLAZE 100 (KV-29X1A/29 29X1R/29) 5% 1/10W 9X1D/29X1E/29X1K/29X1L/



REF.NO.	PART NO.	DESCRIPTION		REMARK	REF.NO.	PART NO.	DESCRIPTIO	N	REMAR	K
R17	1-216-025-91	METAL GLAZE 10 (KV-29X1A/2) 29X1R/2	X1D/29X1	1/10W E/29X1K/29X1L/	R86 R87 R88	1-216-077-00 1-216-081-00 1-216-025-00	METAL GLAZE METAL GLAZE METAL GLAZE	22K	5% 1/10W 5% 1/10W 5% 1/10W	
R18 R19 R20 R21 R24	1-216-025-00 1-216-025-00 1-216-025-00 1-216-025-00 1-216-065-00	METAL GLAZE 100 METAL GLAZE 100 METAL GLAZE 100 METAL GLAZE 100 METAL GLAZE 4.00) 5%) 5%) 5%	1/10W 1/10W 1/10W 1/10W 1/10W	R91 R92 R93 R94 R95	1-216-025-00 1-216-025-00 1-216-033-00 1-216-033-00 1-216-033-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	100 220 220	5% 1/10W 5% 1/10W 5% 1/10W 5% 1/10W 5% 1/10W	
R25 R28 R29 R30 R31	1-216-065-00 1-216-065-00 1-216-065-00 1-216-065-00 1-216-065-00	METAL GLAZE 4. METAL GLAZE 4. METAL GLAZE 4.	7K 5%	1/10W 1/10W 1/10W 1/10W 1/10W	R97 R98 R101 R102 R103	1-216-295-00 1-216-295-00 1-216-061-00 1-216-025-00 1-216-025-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	0 3.3K 100	5% 1/10W 5% 1/10W 5% 1/10W 5% 1/10W 5% 1/10W	
R32 R33 R34 R35 R36	1-216-025-00 1-216-025-00 1-216-025-00 1-216-025-00 1-216-065-00	METAL GLAZE 10 METAL GLAZE 10 METAL GLAZE 10 METAL GLAZE 10 METAL GLAZE 4.	0 5% 0 5%	1/10W 1/10W 1/10W 1/10W 1/10W	R104 R105 R106 R110 R111	1-216-073-00 1-216-113-00 1-216-073-00 1-216-073-00 1-216-029-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	470K ! 10K ! 10K !	5% 1/10W 5% 1/10W 5% 1/10W 5% 1/10W 5% 1/10W	
R37 R38 R39 R40 R42	1-216-065-00 1-216-065-00 1-216-073-00 1-216-067-00 1-216-069-00	METAL GLAZE 4. METAL GLAZE 10 METAL GLAZE 5.	K 5%	1/10W 1/10W 1/10W 1/10W 1/10W	R112 R113 R114 R115 R116	1-216-029-00 1-216-001-00 1-216-029-00 1-216-037-00 1-216-065-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	10 ! 150 !	5% 1/10W 5% 1/10W 5% 1/10W 5% 1/10W 5% 1/10W	
R44 R46 R47 R48 R49	1-216-069-00 1-216-095-00 1-216-057-00 1-216-121-91 1-216-025-00	METAL GLAZE 82	2K 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	R117	1-216-055-00 1-216-056-00		lL/29X1R	/29X1D/29X1E/29X1	
R50 R51 R52 R53 R54	1-216-065-00 1-216-065-00 1-216-065-00 1-216-065-00 1-216-025-00	METAL GLAZE 4. METAL GLAZE 4.	7K 5% 7K 5% 7K 5% 7K 5% 0 5%	1/10W 1/10W 1/10W 1/10W 1/10W	R118 R119 R120 R121 R122	1-216-071-00 1-216-033-00 1-216-069-00 1-216-073-00 1-216-041-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	220 6.8K 10K	5% 1/10W 5% 1/10W 5% 1/10W 5% 1/10W 5% 1/10W	
R58 R59 R60 R61 R62	1-216-063-91 1-216-025-00 1-216-025-00 1-216-025-00 1-216-025-00	METAL GLAZE 10 METAL GLAZE 10 METAL GLAZE 10	0 5% 0 5%	1/10W 1/10W 1/10W 1/10W 1/10W	R123 R124 R125 R126 R127	1-216-031-00 1-216-049-00 1-216-081-00 1-216-025-00 1-216-081-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	1K 22K 100	5% 1/10W 5% 1/10W 5% 1/10W 5% 1/10W 5% 1/10W	
R63 R64 R65 R66 R67	1-216-025-00 1-216-025-00 1-216-025-00 1-216-057-00 1-216-057-00	METAL GLAZE 10 METAL GLAZE 10 METAL GLAZE 2.	0 5%	1/10W 1/10W 1/10W 1/10W 1/10W	R128 R129 R130 R131 R132	1-216-035-00 1-216-037-00 1-216-073-00 1-216-073-00 1-216-025-00	METAL GLAZE METAL GLAZE	330 10K 10K	5% 1/10W 5% 1/10W 5% 1/10W 5% 1/10W 5% 1/10W	
R69 R70 R71 R72 R73	1-216-025-00 1-216-025-00 1-216-025-00 1-216-025-00 1-216-025-00	METAL GLAZE 10 METAL GLAZE 10 METAL GLAZE 10	0 5% 0 5% 0 5%	1/10W 1/10W 1/10W 1/10W 1/10W	R133 R134 R135 R136 R137	1-216-041-00 1-216-001-00 1-216-045-00 1-216-033-00 1-216-049-00	METAL GLAZE METAL GLAZE METAL GLAZE	10 680 220	5% 1/10W 5% 1/10W 5% 1/10W 5% 1/10W 5% 1/10W	
R74 R75 R76 R77 R78	1-216-025-00 1-216-025-00 1-216-025-00 1-216-025-00 1-216-025-00	METAL GLAZE 10 METAL GLAZE 10	0 5% 0 5% 0 5%	1/10W 1/10W 1/10W 1/10W 1/10W	R138 R200 R201 R202 R203	1-216-041-00 1-216-049-00 1-216-033-00 1-216-033-00 1-216-025-00	METAL GLAZE METAL GLAZE METAL GLAZE	1K 220 220	5% 1/10W 5% 1/10W 5% 1/10W 5% 1/10W 5% 1/10W	
R79 R80 R81 R82 R83	1-216-033-00 1-216-049-00 1-216-081-00 1-216-065-00 1-216-073-00	METAL GLAZE 1K METAL GLAZE 22	5% K 5% 7K 5%	1/10W 1/10W 1/10W 1/10W 1/10W	R204 R205 R206 R208 R209	1-216-025-00 1-216-093-00 1-216-033-00 1-216-041-00 1-216-049-00	METAL GLAZE METAL GLAZE METAL GLAZE	68K 220 470	5% 1/10W 5% 1/10W 5% 1/10W 5% 1/10W 5% 1/10W	
R84 R85	1-216-081-00 1-216-073-00	METAL GLAZE 22 METAL GLAZE 10		1/10W 1/10W	R210 R211	1-216-017-91 1-216-033-00			5% 1/10W 5% 1/10W	



REF.NO.	PART NO.	DESCRIPTION	V		REMARK	REF.NO.	PART NO.	DESCRIPTION	N		REMARK
R212 R213 R214	1-216-022-00 1-216-022-00 1-216-025-00	METAL GLAZE METAL GLAZE METAL GLAZE	75	5% 5% 5%	1/10W 1/10W 1/10W	R316 R318 R319	1-216-033-00 1-216-689-11 1-216-081-00	METAL GLAZE METAL GLAZE METAL GLAZE	220 39K 22K	5% 5% 5%	1/10W 1/10W 1/10W
R216 R217 R218 R219 R220	1-216-025-00 1-216-113-00 1-216-025-00 1-216-113-00 1-216-295-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	470K 100 470K	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	R320 R321 R322 R323 R324	1-216-025-00 1-216-025-00 1-216-025-00 1-216-033-00 1-216-063-91	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	100 100 100 220 3.9K	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W
R221 R222 R223 R224 R225	1-216-039-00 1-216-089-00 1-216-295-00 1-216-039-00 1-216-089-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	47K 0 390	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	R326 R327 R328 R329 R330	1-216-025-00 1-216-025-00 1-216-129-00 1-216-089-00 1-216-025-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	100 100 2.2M 47K 100	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W
R226 R227 R228 R229 R230	1-216-033-00 1-216-022-00 1-216-022-00 1-216-033-00 1-216-022-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	75 75 220	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	R331 R332 R333 R334 R335	1-216-059-00 1-216-025-00 1-216-075-00 1-216-041-00 1-208-806-11	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL CHIP	2.7K 100 12K 470 10K	5% 5% 5% 5% 0.50%	1/10W 1/10W 1/10W 1/10W 5 1/10W
R232 R233 R234 R235 R236	1-216-025-00 1-216-025-00 1-216-113-00 1-216-025-00 1-216-113-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	100 470K	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	R336 R337 R338 R339 R340	1-216-109-00 1-216-025-00 1-216-051-00 1-216-049-00 1-216-025-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	330K 100 1.2K 1K 100	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W
R237 R238 R239 R240 R241	1-216-295-00 1-216-089-00 1-216-039-00 1-216-295-00 1-216-089-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	47K 390 0	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	R341 R342 R343 R344 R345	1-216-025-00 1-216-049-00 1-216-061-00 1-216-067-00 1-216-025-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	100 1K 3.3K 5.6K 100	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W
R242 R243 R244 R245 R246	1-216-039-00 1-216-033-00 1-216-033-00 1-216-073-00 1-216-053-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	220 220 10K	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	R346 R347 R348 R349 R350	1-216-063-91 1-216-025-00 1-216-025-00 1-216-025-00 1-216-042-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	3.9K 100 100 100 510	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W
R247 R249 R255 R256 R270	1-216-053-00 1-216-001-00 1-216-025-00 1-216-025-00 1-216-022-00		10 100 100	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	R351 R352 R353 R354 R357	1-216-053-00 1-216-077-00 1-216-033-00 1-216-033-00 1-216-049-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	1.5K 15K 220 220 1K	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W
R271 R272 R273 R280	1-216-022-00 1-216-022-00 1-216-049-00	METAL GLAZE METAL GLAZE	75 75 1K	5% 5% 5%	1/10W 1/10W 1/10W 1/10W	R370	1-216-295-00 < TUN	ER >	0	5%	1/10W
R281 R282 R283 R284 R285 R286	1-216-093-00 1-216-049-00 1-216-089-00 1-216-093-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	68K 1K 47K 68K	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W 1/10W	TU101	1-693-340-11 1-693-339-11	TUNER/VIF (AE (KV-29X1A 29X1F TUNER/VIF (FF TUNER/VIF (UK STAL >	(/29X1D () (KV-	29X1B)	/29X1K/29X1L/
R300 R301 R302 R303 R308	1-216-033-00 1-216-295-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	220 0 0	5% 5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W	X1 X201 X301 X302 X303	1-760-628-11 1-567-504-11 1-567-505-11	VIBRATOR, CER VIBRATOR, CRY OSCILLATOR, C OSCILLATOR, C VIBRATOR, CER	STAL RYSTAL RYSTAL		
R309 R310 R311 R312 R313		METAL GLAZE	220 0 0	5% 5% 5% 5%	1/10W 1/10W 1/10W 1/10W 1/10W						
R314 R315	1-216-295-00 1-216-295-00			5% 5%	1/10W 1/10W						

IF	KV-29X1A/29X1E 29X1L/29X1R	0/29X1E/29X1K /)	IF(KV-29X1B)							
REF.NO.	PART NO.	DESCRIPTION		REMARK	REF.NO.	PART NO.	DESCRIPTIO	N			REMARK
	A-1652-037-A	IF BOARD, COMPLET	* 29X1	A/29X1D/ E/29X1K/ L/29X1R)	R23 R24 R25	1-216-049-91 1-216-295-91 1-216-057-00	METAL GLAZE	1K 0 2.2K	5% 5% 5%	1/10W 1/10W 1/10W	1
	A-1652-038-A	IF BOARD, COMPLET	E (KV-29X1		R021	1-216-174-00		100	5%	1/8W	
	< CAF	PACITOR >					RIABLE RESISTO				
C01	1-164-337-11	CERAMIC CHIP 2.2N	IF	16V	RV01		RES, ADJ, ME				
C02 C03 C04 C05	1-104-957-11 1-135-259-11		20	% 6.3V	*****	A-1652-036-A	IF BOARD, CO	MPLETE			********
C06		CERAMIC CHIP 0.47		16V		< CA	PACITOR >				
C08 C09 C10 C11	1-164-232-11 1-164-004-11 1-164-004-11	CERAMIC CHIP 0.01 CERAMIC CHIP 0.11 CERAMIC CHIP 0.11 CERAMIC CHIP 0.11	MF 10 MF 10 MF 10	0% 25V 0% 25V	C01 C02 C03 C04	1-162-638-11 1-164-337-11 1-104-957-11 1-135-259-11		2.2MF 47MF		20% 20%	16V 16V 16V 6.3V
C15 C16		CERAMIC CHIP 1MF)% 25V 16V	C05	1-164-004-11	CERAMIC CHIP	0.1MF		10%	25V
C18 C19	1-124-937-11			16V 0% 16V	C06 C08 C09 C10	1-164-232-11	CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP CERAMIC CHIP	0.01MF 0.1MF		10% 10% 10%	16V 50V 25V 25V
		LTER >			C11	1-164-004-11	CERAMIC CHIP			10%	25V
CF01		TRAP, CERAMIC (5			C12	1-164-232-11				10% 10%	50V 50V
SWF04		FILTER, SURFACE	WAVE		C13 C14		CERAMIC CHIP	0.01MF		10% 10% 20%	50V 50V 16V
	< IC				C15 C16	1-104-957-11 1-162-638-11	ELECT CERAMIC CHIP	47MF 1MF		40%	16V
IC01	8-759-385-26	IC TDA4472-CFLG3			C17	1-163-243-11				5%	50V
	< CO				C18 C20	1-164-337-11 1-124-937-11	ELECT	10MF		20%	16V 16V
L02 L04 L08	1-408-408-00 1-408-419-00 1-410-992-11	INDUCTOR 6	.2UH 8UH .82UH		C21		CERAMIC CHIP LTER >	4.7MF			16V
	< VA	RIABLE COIL >			CF01	1-409-430-11	TRAP, CERAMI	.c			
LV01	1-411-874-11	COIL			SWF01 SWF02		FILTER, SURF				
	< TR	ANSISTOR >			SWF03	1-767-083-11	FILTER, SURF	ACE WAV	E		
Q01	8-729-216-22	TRANSISTOR 2SA11	62-G			< TR	IMMER >				
	< RE	SISTOR >			CT01	1-760-662-11	TRAP, CERAMI	:C			
JR01 JR02	1-216-296-91	METAL GLAZE 0 METAL GLAZE 0		1/8W 1/8W		< IC	>				
JR03 JR04	1-216-295-00) METAL GLAZE 0 L METAL GLAZE 0	5%	1/10W 1/8W	IC01	8-759-069-36	IC MC74HC404	6AF			
JR05) METAL GLAZE 0		1/10W		< CC)IL >				
JR07	1-216-295-00) METAL GLAZE 0	5%	1/10W	L02 L04	1-408-406-00 1-408-419-00	INDUCTOR	5.6U 68UH	[
R01 R02	1-216-029-00 1-216-089-91) METAL GLAZE 15 1 METAL GLAZE 47		1/10W 1/10W	L05 L06	1-410-987-11 1-408-399-00	INDUCTOR CHI	IP 0.33 1.50			
R03 R04	1-216-089-93 1-216-057-00	1 METAL GLAZE 47	2K 5%	1/10W 1/10W		< VA	ARIABLE COIL >				
R05				1/10W	LV01	1-411-874-11	COIL				
R06 R07	1-216-025-93	1 METAL GLAZE 10	0 5%	1/10W 1/10W		< TH	RANSISTOR >				
R08 R09	1-216-045-0	O METAL GLAZE 10 O METAL GLAZE 68	30 5%	1/8W 1/10W	Q01		TRANSISTOR 2				
R10 R11	1-216-041-0	0 METAL GLAZE 4		1/10W 1/10W	Q02 Q03 Q04	8-729-035-11	L TRANSISTOR F L TRANSISTOR F L TRANSISTOR F	BF799-GE	EG.		
1/11	1-210-031-0	O MEINI GUNDE I	2K 3.0	-/ -/11	X . 3						

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Replace only with the part number specified.





REF.NO.	PART NO.	DESCRIPTI	ON		REMARK	REF.NO.	PART NO.	DESCRIPTION	ON			REMARK
	< RES	SISTOR >					< DIC	DDE >				
JR01 JR02 JR03 JR04 JR05	1-216-296-91 1-216-295-00 1-216-296-91	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	0 5% 0 5% 0 5% 0 5% 0 5%	1/8V 1/10 1/8V	₹ V	D701 D702 D706 D707 D708	8-719-991-33 8-719-991-33	DIODE RD3.9E DIODE 1SS133 DIODE 1SS133 DIODE 1SS133 DIODE 1SS133	T-77 T-77 T-77			
JR07	1-216-295-00	METAL GLAZE	0 5%	1/10	ω	D709		DIODE 1SS133				
R01 R02 R03 R04 R05	1-216-089-91 1-216-089-91 1-216-057-00 1-216-081-00	METAL GLAZE METAL GLAZE METAL GLAZE	150 5% 47K 5% 47K 5% 2.2K 5% 22K 5%	3 1/10 3 1/10 3 1/10 3 1/10	DW DW DW	D710 D711 D714 D715 D716 D717	8-719-302-43 8-719-991-33 8-719-991-33 8-719-991-33 8-719-991-33	DIODE 1SS133 DIODE 1SS133 DIODE 1SS133 DIODE 1SS133	T-77 T-77 T-77 T-77			
R06 R07 R08	1-216-057-00 1-216-025-91		2.2K 5% 100 5% 100 5%	1/10)W	D718 D719	8-719-991-33	DIODE 1SS133 DIODE 1SS133	T-77			
R09 R10	1-216-045-00		680 5% 470 5%	1/10)W	D720		DIODE 1SS133 P SOCKET >	T-//			
R11		METAL GLAZE	1.2K 5%			J701 - 3	1+526-990-22		\$33344	14111	MMIII	H=111
R12 R13	1-216-063-91	METAL GLAZE METAL GLAZE	3.9K 5% 3.3K 5%	1/10)W	-622200	< CO		. 244449			di Montellino di A
R14 R15	1-216-023-00		82 5% 47 5%			L704	1-408-609-41	INDUCTOR	3307	H		
R16 R17		METAL GLAZE	220 5%				< TRA	ANSISTOR >				
R18 R20 R23	1-216-013-00 1-216-222-00	METAL GLAZE METAL GLAZE METAL GLAZE METAL GLAZE	47 5% 33 5% 10K 5% 1K 5%	1/10 1/80	OW √	Q702 Q703 Q704 Q705	8-729-906-70	TRANSISTOR 2 TRANSISTOR B TRANSISTOR 2 TRANSISTOR 2	F871-1: SA1091	27 -0		
R25 R21		METAL GLAZE	2.2K 5% 100 5%			Q705	8-729-906-70					
	< VAI	RIABLE RESISTO	OR >			Q707 Q708 Q709		TRANSISTOR 2 TRANSISTOR B	SC2785 F871-1	-HFE 27		
RV01 RV02	1-226-703-11	RES, ADJ, ME RES, ADJ, ME	TAL GLAZE	10K 10K		Q710 Q711	8-729-200-17 8-729-173-38	TRANSISTOR 2 TRANSISTOR 2				
*****	********	******	*******	******	******		< RES	SISTOR >				
	*A-1638-082-A	*********				R704 R705 R706	1-216-486-00 1-260-103-11 1-247-815-91	CARBON	8.2K 2.2K 220	5%	3W 1/2W 1/4W	F
		PACITOR >				R707 R709	1-249-408-11 1-202-844-00		180 330K	5% 10%	1/4W 1/2W	
C702 C703 C708 C710 C712	1-102-824-00 1-102-116-00 1-162-114-00 1-107-652-11 1-102-116-00	CERAMIC CERAMIC ELECT	470PF 680PF 0.0047MF 10MF 680PF	5% 10% 20% 10%	50V 50V 2KV 250V 50V	R711 R712 R714 R715 R716	1-249-423-11 1-260-103-11 1-216-486-00 1-249-417-11 1-247-815-91	CARBON METAL OXIDE CARBON	3.3K 2.2K 8.2K 1K 220	5%	1/4W 1/2W 3W 1/4W 1/4W	F
C714 C717 C718 C719 C722	1-126-967-11 1-102-114-00 1-102-114-00 1-102-114-00 1-101-880-00	CERAMIC CERAMIC CERAMIC	47MF 470PF 470PF 470PF 47PF	20% 10% 10% 10% 5%	16V 50V 50V 50V 50V	R717 R718 R720 R722 R723	1-249-408-11 1-202-814-11 1-249-423-11 1-202-848-00 1-249-417-11	CARBON SOLID CARBON SOLID	180 33K 3.3K 680K 1K	5% 10% 5%	1/4W 1/2W 1/4W 1/2W 1/4W	
C723 C724	1-101-880-00 1-101-880-00		47PF 47PF	5% 5%	50V 50V	R724	1-202-846-00		470K		1/2W	
		NNECTOR >				R726 R727	1-260-103-11 1-247-815-91	CARBON CARBON	2.2K 220	5% 5%	1/2W 1/4W	
CN701 CN702		PIN, CONNECT				R728 R729	1-216-350-11 1-249-408-11		1.2 180	5% 5%	1W 1/4W	F
CN703	*1-568-882-51	TAB (CONTACT				R731 R733 R734 R735	1-249-423-11 1-249-415-11 1-247-807-31 1-249-415-11	CARBON CARBON	3.3K 680 100 680	5% 5% 5% 5%	1/4W 1/4W 1/4W 1/4W	



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	UL										
REF.NO.	PART NO.	DESCRIPTIO	N		REMARK	REF.NO.	PART NO.	DESCRIPT	ION		REMARK
R736	1-249-417-11		8.2K 5%	3W		C509 C510 C511	1-136-165-00 1-126-969-11 1-136-202-11 1-106-220-00	FILM ELECT FILM MYLAR	0.1MF 220MF 0.33MF 0.1MF	5% 20% 5% 10%	50V 50V 63V 100V
R740 R741 R744 R745	1-249-415-11 1-202-549-00 1-249-421-11 1-249-421-11	SOLID CARBON	680 5% 100 20% 2.2K 5% 2.2K 5%	1/4W 1/2W 1/4W 1/4W		C513 C514 C515	1-136-165-00 1-126-941-11	FILM	0.1MF 0.1MF 470MF	10% 5% 20%	50V 25V
R746 R747 R748	1-249-421-11 1-249-437-11 1-249-417-11	CARBON CARBON CARBON	2.2K 5% 47K 5% 1K 5%	1/4W 1/4W 1/4W		C517 C518 C519 C520	1-126-941-11 1-102-228-00 1-102-228-00 1-126-941-11	ELECT CERAMIC CERAMIC	470MF 470PF 470PF 470MF	20% 10% 10% 20%	25V 500V 500V 25V
R749	1-249-435-11		33K 5%	1/4W		C521 C522	1-124-006-11 1-126-964-11		10MF 10MF	20% 20%	25V 50V
RV701	< VAR 1-230-641-11	RIABLE RESISTO		2.2M		C523	1-136-165-00 1-113-890-51	FILM ELECT	0.1MF 0.0022MF	5%	50V 250V
RV702	1-241-656-21	RES, ADJ, ME	TAL FILM 1	10M		C601 1	1-161-964-91	CERANIC	0.0047MP		250V 250V
******	**********	******	*******	******	*****	C603	1-161-964-91 1-125-555-11	ELECT	330MF	20%	400V
	*A-1640-214-A	********				C604 C605 C606	1-126-968-11 1-107-929-11 1-162-318-11	ELECT	100MF 10MF 0.001MF	20% 20% 10%	50V 100V 500V
		PACITOR >	4.7347	0.00	F 0.47	C607 C608	1-104-666-11 1-109-880-11		220MF 0.0015MF	20% 3%	25V 2KV
C1801 C1803 C1804 C1807	1-126-967-11 1-137-368-11 1-126-964-11 1-137-366-11	FILM ELECT	47MF 0.0047MF 10MF 0.0022MF	20% 5% 20% 5%	50V 50V 50V 50V	C611 C612 C613	1-103-880-11 1-102-228-00 1-111-160-11 1-124-347-00	CERAMIC ELECT	470PF 22MF 100MF	10% 20% 20%	500V 100V 160V
	< COI	NNECTOR >				C614	1-128-526-11 1-111-067-11	ELECT	100MF 0.001F	20% 20%	25V 25V
CN1801 CN1803	1-573-299-21 *1-568-878-51	CONNECTOR, I	BOARD TO BO TOR 3P	ARD 10P		C615 C616 C617 C618	1-111-067-11 1-111-067-11 1-128-339-11 1-136-165-00	ELECT ELECT	0.001F 2200MF 0.1MF	20% 20% 20% 5%	25V 16V 50V
		ODE >				C619	1-102-228-00	CERAMIC	470PF	10%	500V
D1802		DIODE RD10E	SB2			C620 C621 C622	1-102-228-00 1-136-165-00 1-104-797-11	FILM	470PF 0.1MF 0.47MF	10% 5% 20%	500V 50V 100V
701001	< IC					C623	1-104-757-11		220MF	20%	25V
IC1801 IC1802	8-759-701-59	IC MCT7809C	T			C624 C625	1-136-165-00 1-126-967-11	FILM ELECT	0.1MF 47MF	5% 20%	50V 50V
		LINK >				C626 C628	1-104-666-11 1-126-964-11	ELECT	220MF 10MF	20% 20%	25V 50V
JW1802	1-532-605-91	LINK, IC 0.	4A (ICP-FI	n:	[1]111111111	C629	1-111-097-11		0.0022F	20%	35V
R1807 R1809	< RE 1-247-883-00 1-249-429-11		150K 59			C630 C631 C632 C633	1-111-097-11 1-126-965-11 1-104-666-11 1-107-564-11	ELECT ELECT ETLM	0.0022F 22MF 220MF 0.22MF	20% 20% 20% 20%	35V 50V 25V 300V
R1810 R1811	1-249-429-11	CARBON	10K 59	6 1/4 6 1/4	M M		1-107-564-11		0,22MF	20%	3000
R1812	1-249-429-11	CARBON	10K 5			C636 1	1-107-564-11 1-113-890-51 1-106-220-00	ELECT MYLAR	0.22MF 0.0022MF 0.1MF	20% 20% 10% 10%	300V 250V 100V 2KV
	*A-1642-165-A	D BOARD, CO	MPLETE			C647 C651	1-162-116-00 1-102-228-00		680PF 470PF	10%	500V
		SPACER, INS				C800 C801 C802 C804	1-137-368-11 1-137-372-11 1-136-153-00 1-136-165-00	FILM FILM FILM	0.0047MF 0.022MF 0.01MF 0.1MF	5% 5% 5% 5%	50V 50V 50V 50V
	< CA	APACITOR >				C805	1-136-207-11		0.047MF	10%	250V
C502 C503 C504 C506 C507	1-102-824-00 1-136-165-00 1-102-824-00 1-126-941-11 1-109-953-11) FILM) CERAMIC L ELECT	470PF 0.1MF 470PF 470MF 2.2MF	5% 5% 5% 20% 20%	50V 50V 50V 25V 50V	C806 C807 C808 C810 C811	1-104-999-11 1-136-109-00 1-137-205-11 1-107-683-11 1-102-212-00	FILM FILM ELECT	0.1MF 0.68MF 0.1MF 2.2MF 820PF	10% 5% 5% 0 10%	200V 200V 400V 250V 500V

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Replace only with the part number specified.



REF.NO.	PART NO.	DESCRIPT	ION		REMARK	REF.NO.	PART NO.		DESCRIPTION	REMARK
C812	1-136-125-00		0.68MF	5%	400V	CN1420	*1-568-878-51	PIN,	CONNECTOR 3P	
C813	1-129-722-00		0.047MF	10%	630V		. DT	. T. T.		
C814 C815	1-136-565-11 1-136-562-11		0.015MF 0.0082MF	3% 10%	1.4KV 400V		< DIC)NR >		
C816	1-161-754-00		0.001MF	10%	2KV	D500	8-719-109-85	DIOD	E RD5.1ES-B2	
						D502	8-719-979-85			
C817 C818	1-161-754-00		0.001MF 470PF	10% 10%	2KV 2KV	D503	8-719-979-85			
C819	1-162-134-11 1-136-208-11		0.068MF	10%	250V	D504 D505	8-719-991-33 8-719-982-03			
C820	1-102-114-00	CERAMIC	470PF	10%	50V	2000				
C821	1-162-114-00	CERAMIC	0.0047MF		2KV	D506	8-719-991-33			
C822	1-107-662-11	PI.PCm	22MF	20%	250V	D507 D600	8-719-109-85 8-719-510-53			
C824	1-123-024-21		33MF	20.0	160V	D601	8-719-046-77			
C829	1-124-902-00	ELECT	0.47MF	20%	50V	D603	8-719-109-97			
C830 C832	1-124-902-00 1-124-903-11		0.47MF 1MF	20% 20%	50V 50V	D604	8-719-046-75	DIAD	D DT 1 171	
C032	1-124-903-11	ELECT	IMF	20%	201	D605	8-719-302-43			
C834	1-128-551-11		22MF	20%	25V	D606	8-719-302-43			
C835	1-162-318-11		0.001MF	10%	500V	D607	8-719-046-78			
C836 C838	1-162-117-00 1-102-228-00		100PF 470PF	10% 10%	500V 500V	D608	8-719-312-94	DIOD	DE EU2-V1	
C839	1-136-189-00		0.1MF	10%	250V	D609	8-719-301-64	DIOD	E RU4DS	
						D610	8-719-046-74	DIOD	E AU-01Z-V1	
C845	1-102-110-00		220PF	10%	50V	D611	8-719-045-48			
C901 C902	1-101-810-00 1-137-372-11		100PF 0.022MF	5% 5%	500V 50V	D612 D613	8-719-046-76 8-719-045-48			
C903	1-137-372-11		0.022MF	5%	50V	5013	0 715 045 40	DIOD	LINE CIED	
C904	1-104-665-11	ELECT	100MF	20%	25V	D614	8-719-045-48			
C905	1-126-964-11	PT.PAM	10MF	20%	50V	D615 D616	8-719-046-75 8-719-110-03			
C906	1-126-964-11		10MF	20%	50V	D617	8-719-991-33		E 1SS133T-77	
C907	1-126-964-11	ELECT	10MF	20%	50V	D618	8-719-991-33			
C908	1-126-964-11		10MF	20%	50V	DC10	0.710.001.22	DIAD	T 1001225 FF	
C911	1-126-964-11	ELECT	10MF	20%	50V	D619 D620	8-719-991-33 8-719-991-33			
C913	1-101-810-00	CERAMIC	100PF	5%	500V	D622			E MTZJ-T-77-9.1A	
C1200	1-136-165-00		0.1MF	5%	50V	D625	8-719-991-33			
C1201 C1202	1-136-173-00 1-136-173-00		0.47MF 0.47MF	5% 5%	50V 50V	D626	8-719-046-74	DIOD	E AU-01Z-V1	
C1202	1-136-173-00		0.22MF	5%	50V	D631	8-719-109-93	DIOD	E RD6.2ES-B2	
						D800	8-719-991-33	DIOD	E 1SS133T-77	
C1204 C1205	1-136-169-00		0.22MF	5%	50V	D801	8-719-991-33			
C1205	1-101-005-00 1-101-005-00	CERAMIC	0.022MF 0.022MF		50V 50V	D802 D803	8-719-991-33 8-719-908-03			
C1207	1-126-933-11		100MF	20%	16V	5000				
C1208	1-126-963-11	ELECT	4.7MF	20%	50V	D807	8-719-302-43			
C1209	1-126-963-11	RI.RCT	4.7MF	20%	50V	D808 D809	8-719-908-03		E GP08D E RGP02-20EL-6394	
C1214	1-126-933-11		100MF	20%	16V	D810	8-719-302-43			
C1215	1-136-173-00	FILM	0.47MF	5%	50V	D812			E FMS-3FU-LF027-1	
C1216 C1217	1-137-366-11 1-137-366-11		0.0022MF 0.0022MF	5% 5%	50V 50V	D815	8-719-908-03	מסדת	CD00D	
CIZII	1-13/-300-11	FILM	0.0022MF	3%	50V	D817	8-719-109-89			
C1218	1-126-934-11	ELECT	220MF	20%	16V	D901			E SLA-570KT3F	
	201	n=0=0=0				2000	*4-203-258-01			
	< COI	NNECTOR >				D902	8-719-923-60	DIOD	E MTZJ-T-77-9.1A	
CN600 A	1-508-786-00	PIN, CONNEC	TOR (5MM PIT	CH) 2P		D903	8-719-923-60	DIOD	E MTZJ-T-77-9.1A	
CN601 A	1-508-765-11	PIN. CONNEC	TOR (5MM PIT	CH) 3P.	11111111	D904			E MTZJ-T-77-9.1A	
CN800	*1-580-844-11 *1-580-798-11	PIN, CONNEC	TOR (POWER)			D905 D906			E MTZJ-T-77-9.1A	
CN801	*1-573-296-21			RD 10P		D1201	8-719-109-72		E MTZJ-T-77-9.1A E RD3.9ES-B2	
CN803 CN804	1-695-915-11						< FUS	SE >		
CN807	1-778-037-11 1-568-878-51					P601 14	1-576-232-21	FIISE	(H.B.C.) 5.0A/250V	
CN900	1-568-678-11	TERMINAL BI	LOCK, S 3P				1-533-230-12	HOLD	ER, PUSE :F601	法制11年7月
CN902	1-695-299-11	CONNECTOR,	BOARD TO BOA	RD 50P						
CN1401	*1-568-880-51	PIN. CONNEC	TOR 5P				< FEF	KKITE	BEAD >	
CN1408	*1-568-879-11					FB600	1-410-397-21	FERR	ITE BEAD INDUCTOR 1.1U	i



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Replace only with the part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	l		REMARK
FB601	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH		Q604	8-729-024-35	TRANSISTOR 2S	C2808STP-R		
FB602	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH		Q605		TRANSISTOR 25			
FB604 FB605		FERRITE BEAD INDUCTOR 0.45UH FERRITE BEAD INDUCTOR 0.45UH		Q606 Q607		TRANSISTOR DT.			
				-	0 700 110 70		00005 WDD		
FB606 FB607	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH FERRITE BEAD INDUCTOR 1.1UH		Q800 Q801		TRANSISTOR 2S			
FB608	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH		Q802	8-729-016-32	TRANSISTOR 2S	C4927-01		
FB800	1-410-396-41	FERRITE BEAD INDUCTOR 0.45UH		Q803 Q805		TRANSISTOR 25 TRANSISTOR DT			
	< IC	>							
TOE 0.0	8-759-192-71	TO 00000270		Q900 Q1200		TRANSISTOR 2S TRANSISTOR 2S			
IC500 IC600	8-749-010-84	TC STR-S6708		Q1201		TRANSISTOR DT			
IC601 A	8-749-924-92	IC TLP721(D4-)		Q1202		TRANSISTOR DT			
IC602 IC603	8-749-920-61 8-759-144-82	IC SE-135N IC µPC2405HF		Q1203	8-729-900-74	TRANSISTOR DT	C143TS		
		-		Q1204	8-729-900-74	TRANSISTOR DT	C143TS		
IC604 IC606	8-759-366-13 8-759-267-25	IC L4941BV IC LM2940T-9.0			< RES	ISTOR >			
IC800	8-759-103-93	TC HPC393P					22- 40	4 (4**	
IC900 IC1200	8-747-905-11 8-759-250-68	RAY CATCHER ELEMENT SBX1790-	51	R500 R502	1-215-457-00 1-249-421-11		33K 1% 2.2K 5%	1/4W 1/4W	
101200				R503	1-249-429-11	CARBON	10K 5%	1/4W	
IC1201	8-759-502-21	IC TDA2822M		R504 R505	1-215-455-00 1-249-382-11		27K 1% 1.2 5%	1/4W 1/4W	P
	< JAC	!K >							r
7000	1 764 606 11	73.07		R506 R507	1-215-439-00 1-215-888-00	METAL MEMAI OVIDE	5.6K 1% 220 5%	1/4W 2W	F
J900	1-764-606-11	JACK		R508	1-216-371-00		1.5 5%	2W	F
	< COI	L >		R509	1-249-443-11	CARBON	0.47 5%	1/4W	
L502	1-412-519-11	INDUCTOR 3.3UH		R510	1-249-443-11	CARBON	0.47 5%	1/4W	r
L503	1-412-519-11	INDUCTOR 3.3UH		R520	1-215-457-00	METAL	33K 1%	1/4W	
L609 L611	1-412-533-21 1-412-527-11			R521 R522	1-215-455-00 1-247-863-91	METAL CARBON	27K 1% 22K 5%	1/4W 1/4W	
L612	1-412-522-41			R523	1-247-863-91	CARBON	22K 5%	1/4W	
L613	1-412-522-41	INDUCTOR 5.6UH		R524	1-249-425-11	CARBON	4.7K 5%	1/4W	
L615	1-412-529-11	INDUCTOR 22UH		R525	1-249-425-11		4.7K 5%	1/4W	
L616 L801	1-412-533-21			R526 R527	1-249-421-11 1-215-437-00		2.2K 5% 4.7K 1%	1/4W 1/4W	
L802		COIL, DRAM CORE (CDI) COIL, WITH CORE		R600	1-216-490-11		39K 5%	3W	F
				R601	1-249-417-11	CARBON	1K 5%	1/4W	
L803 L804	1-420-8/2-00	COIL, AIR CORE COIL, HORIZONTAL LINEARITY		R602	1-215-473-00	METAL	150K 1%	1/4W	
L805	1-406-675-11	COIL, CHOKE 4.7MMH		R603	1-215-898-11		10K 5%	2W	F
L809 L811	1-412-533-21	INDUCTOR 47UH COIL, CHOKE 220UH		R604 R605	1-249-420-11 1-216-362-11		1.8K 5% 0.27 5%	1/4W 2W	F
				R607	1-216-421-11		12 5%	1W	F
L813 L901	1-412-552-11 1-408-603-31			R608	1-216-365-00	METAL OXIDE	0.47 5%	2W	F
L902	1-408-603-31	INDUCTOR 10UH		R610	1-215-421-00	METAL	1K 1%	1/4W	
L903 L904	1-408-409-00			R611 R612	1-216-354-11 1-249-428-11		2.7 5% 8.2K 5%	1W 1/4W	F
11904	1-408-409-00	INDUCTOR 10UH		R613	1-249-417-11		1K 5%	1/4W	
	< IC	LINK >		R614	1-215-877-11	METAL OXIDE	22K 5%	1W	F
P8600 A	1-532-686-91	LINK, IC 2.7A (ICP-P75)		R615	1-249-435-11	CARBON	33K 5%	1/4W	•
P\$601 A	1-532-686-91	LINK, IC 2.7A (ICP-F75)		R616 R617	1-215-471-00 1-215-901-00		120K 1% 33K 5%	1/4W 2W	F
P\$603 A	1-532-686-91	LINK, IC 2.7A (ICP-F75) LINK, IC 2.7A (ICP-F75)		R618	1-247-863-91		22K 5%	1/4W	r
- man rea with the	MARKET LA LA TORING			R619	1-216-425-11	Μ ጀጥል፣. ለሃተካወ	56 5%	1W	F
	< TRA	ANSISTOR >		R620	1-260-131-11	CARBON	470K 5%	1/2W	
Q501		TRANSISTOR 2SC2785-HFE		R621	1-216-425-11		56 5%	1W	F
Q502 Q503		TRANSISTOR 2SA1175-HFE TRANSISTOR DTC144ES		R622 R623	1-249-437-11 1-249-429-11		47K 5% 10K 5%	1/4W 1/4W	
Q601	8-729-025-04	TRANSISTOR 2SC3852A							_
Q602	8-729-320-28	TRANSISTOR 2SA1667		R624 R625	1-249-393-11 1-249-434-11		10 5% 27K 5%	1/4W 1/4W	F
Q603	8-729-802-78	TRANSISTOR 2SC3502-E		R626	1-249-430-11		12K 5%	1/4W	
				·					

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Replace only with the part number specified.



REF.NO.	PART NO.	DESCRIPTIO	N			REMARK	REF.NO.	PART NO.	DESCRIPT	ION	J L	REMARK
R627 R628	1-216-347-11 1-249-415-11		0.68 680	5% 5%	1W 1/4W	F F	R908 R909	1-249-401-11 1-249-429-11		47 5 10K 5	% 1/4V % 1/4V	
R630 1	1-244-945-91 1-218-265-21 1-205-949-11 1-247-807-31 1-247-807-31	METAL WIREWOUND CARBON	1M 8.2M 1.8 100 100	5%	1/2W 1W 10W 1/4W 1/4W		R910 R911 R912 R913 R914	1-249-422-11 1-249-426-11 1-249-429-11 1-247-863-91 1-249-437-11	CARBON CARBON CARBON	2.7K 5 5.6K 5 10K 5 22K 5 47K 5	% 1/4V % 1/4V % 1/4V	i i i
R634 R635 R636 R637 R638	1-249-397-11 1-249-437-11 1-249-417-11 1-247-815-91 1-247-863-91	CARBON CARBON CARBON	22 47K 1K 220 22K	5% 5% 5% 5% 5%	1/4W 1/4W 1/4W 1/4W 1/4W	F	R919 R921 R922 R923 R1200	1-249-437-11 1-249-437-11 1-247-807-31 1-249-412-11 1-249-425-11	CARBON CARBON CARBON	47K 5 47K 5 100 5 390 5 4.7K 5	% 1/4V % 1/4V % 1/4V	i i i
R639 R642 R645 R646 R647	1-215-439-00 1-205-949-11 1-249-422-11 1-249-377-11 1-202-933-61	WIREWOUND CARBON CARBON	5.6K 1.8 2.7K 0.47 0.1	5% 5%	1/4W 10W 1/4W 1/4W 1/2W	F	R1201 R1202 R1203 R1204 R1205	1-249-434-11 1-249-389-11 1-249-421-11 1-249-421-11 1-249-428-11	CARBON CARBON CARBON	27K 55 4.7 55 2.2K 55 2.2K 55 8.2K 55	% 1/4V % 1/4V % 1/4V	IF I
R800 R802 R803 R805 R809	1-249-421-11 1-247-863-91 1-249-424-11 1-249-429-11 1-249-441-11	CARBON CARBON CARBON	2.2K 22K 3.9K 10K 100K	5% 5% 5%	1/4W 1/4W 1/4W 1/4W 1/4W		R1206 R1208 R1209 R1211 R1212	1-249-428-11 1-212-849-00 1-212-849-00 1-249-424-11 1-249-424-11	FUSIBLE FUSIBLE CARBON	8.2K 59 4.7 59 4.7 59 3.9K 59 3.9K 59	6 1/40 6 1/40 6 1/40	F F
R812 R813 R814 R816 R817	1-249-421-11 1-215-867-00 1-249-411-11 1-215-917-11 1-216-481-11	METAL OXIDE CARBON METAL OXIDE	2.2K 470 330 1K 1.2K	5% 5% 5% 5%	1/4W 1W 1/4W 3W 3W	F F	R1213 R1216 R1217	1-249-421-11 1-249-413-11 1-249-425-11 < REI	CARBON CARBON	2.2K 59 470 59 4.7K 59	6 1/4W	
R818 R819 R820 R821 R822	1-215-882-00 1-216-345-11 1-249-403-11 1-215-909-11 1-215-868-00	METAL OXIDE CARBON METAL OXIDE	22 0.47 68 47 680	5% 5% 5% 5%	2W 1W 1/4W 3W 1W	F F F		. 1-755-018-11 < SWI 1-571-433-21	TCH >			
R824 R826 R827 R828	1-249-420-11 1-247-752-11 1-249-425-11 1-249-430-11	CARBON CARBON CARBON	1.8K 1K 4.7K 12K	5% 5%	1/4W 1/2W 1/4W 1/4W	r	\$900 \$901 \$902	1-692-979-11 1-692-979-11 1-692-979-11	SWITCH, TAC	PILE PILE	V	**********
R829 R830	1-249-493-11 1-217-778-11	CARBON	56K 1K	5% 5%	1/2W 1W	F	SG801	1-519-422-11				
R833 R835 R836 R837	1-247-887-00 1-216-471-11 1-249-439-11 1-249-427-11	CARBON METAL OXIDE CARBON	220K 27 68K 6.8K	5% 5% 5%	1/4W 3W 1/4W 1/4W		LF600 : 1. LF601 : 1.	< TRA 1-421-776-11 1-421-776-11	NSFORMER >			
R840 R841 R842 R843 R846	1-247-807-31 1-249-418-11 1-249-425-11 1-249-441-11 1-247-885-00	CARBON CARBON CARBON	100 1.2K 4.7K 100K 180K	5% 5% 5%	1/4W 1/4W 1/4W 1/4W 1/4W		T601 1 1 T800	1-429-605-11 1-424-545-11 1-453-169-11 1-437-090-31	TRANSFORMER TRANSFORMER TRANSFORMER	CONVERTER FERRITE (PMT)	
R847 R848 R849 R850 R851	1-247-895-91 1-247-863-91 1-249-429-11 1-249-425-11 1-215-898-11	CARBON CARBON CARBON	470K 22K 10K 4.7K 10K	5% 5%	1/4W 1/4W 1/4W 1/4W 2W	F	******	11809-827-111	******	******		
R852 R900 R901 R902 R904	1-249-432-11 1-247-815-91 1-247-734-11 1-247-734-11 1-249-389-11	CARBON CARBON CARBON	18K 220 39 39 4.7	5% 5% 5% 5% 5%	1/4W 1/4W 1/2W 1/2W 1/4W	F		*A-1644-070-A *4-368-683-11 *4-368-683-21	SPRING, TRAN	*******		
R905 R906 R907	1-247-804-11 1-247-804-11 1-247-804-11	CARBON	75 75 75	5% 5% 5%	1/4W 1/4W 1/4W		C1701 C1702	< CAP 1-126-933-11 1-128-551-11		100MF 22MF	20% 20%	16V 25V



R1724

1-249-400-11 CARBON

39

1/4W

REMARK DESCRIPTION REF.NO. PART NO. 16V 100MF 20% C1703 1-126-933-11 ELECT 100V 1-107-357-11 FILM 0.47MF 5% C1704 33MF 20% 160V 1-107-638-11 ELECT C1705 200V 5% 0.1MF C1706 1-104-999-11 FILM 1-137-397-11 FILM 0.047MF 5% 100V C1707 1-137-364-11 FILM 0.001MF 5% 50V C1708 0.001MF 5% 50V 1-137-364-11 FILM C1709 0.001MF 10% 50V C1710 1-102-074-00 CERAMIC 2.2MF 20% 160V C1720 1-107-667-11 ELECT 1-137-397-11 100V 0.047MF 5% FILM C1721 20% 16V 1-126-934-11 ELECT 220MF C1722 0.0047MF 500V C1723 1-161-830-00 CERAMIC 20% 1-128-551-11 ELECT 22MF 25V C1725 1-126-934-11 ELECT 220MF 20% 16V C1726 < CONNECTOR > CN1015 *1-568-880-51 PIN, CONNECTOR 5P 1-774-418-11 CONNECTOR, BOARD TO BOARD 8P CN1718 < DIODE > D1701 8-719-991-33 DIODE 1SS133T-77 D1702 8-719-110-88 DIODE RD39ES-B2 D1703 8-719-110-88 DIODE RD39ES-B2 < COIL > L1701 1-408-409-00 INDUCTOR 10UH L1702 1-408-403-00 INDUCTOR 3.3UH INDUCTOR 10UH 1-408-409-00 L1703 INDUCTOR L1704 1-408-418-00 56IIH L1705 1-408-418-00 INDUCTOR 56UH < TRANSISTOR > 8-729-119-78 TRANSISTOR 2SC2785-HFE Q1701 Q1702 8-729-119-78 TRANSISTOR 2SC2785-HFE Q1703 TRANSISTOR 2SA1837 8-729-017-05 8-729-119-78 TRANSISTOR 2SC2785-HFE 01704 8-729-017-06 TRANSISTOR 2SC4793 Q1706 Q1708 8-729-119-78 TRANSISTOR 2SC2785-HFE 8-729-119-78 TRANSISTOR 2SC2785-HFE 01709 < RESISTOR > R1701 1-249-417-11 CARBON 1K 5% 1/4W 1-249-417-11 CARBON 5% 1/4W R1702 1K 2.2K 5% 1/4W R1703 1-249-421-11 CARBON R1704 1-249-415-11 CARBON 680 5% 1/4W R1705 1-247-815-91 CARBON 220 5% 1/4W R1706 1-247-815-91 CARBON 220 5% 1/4W R1708 1-249-412-11 CARBON 390 5% 1/4W R1712 1-260-311-11 CARBON 39 5% 1/2W R1713 1.8 5% 1/4W 1-249-384-11 CARBON 1-249-414-11 CARBON 1/4W F R1714 560 5% R1715 1-249-432-11 CARBON 18K 1/4W R1716 1-249-417-11 CARBON 5% 1/4W F 1K R1717 1-216-476-11 METAL OXIDE 180 5% 3W F 1/4W R1718 18K 5% 1-249-432-11 CARBON 1/4W F R1719 1-249-384-11 CARBON 1.8 R1720 1/4W F 1-249-400-11 CARBON 39 R1721 CARBON 560 5% 1/4W 1-249-414-11 1/4W 47 5% R1722 1-249-401-11 CARBON

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REF.NO.	PART NO.	DESCRIPTION	REMARK								
R1725	1-216-451-11	METAL OXIDE 120 5%	2W F								
R1728 R1729 R1730 R1731	1-249-413-11 1-249-413-11 1-249-422-11 1-249-411-11	CARBON 470 5% CARBON 2.7K 5% CARBON 330 5%	1/4W 1/4W 1/4W 1/4W								
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	i. 1-406-807-11 1-452-032-00										
	1-452-094-00 1-453-169-11 1-544-727-11	MAGNET, ROTATABLE DISK; TRANSFORMER ASSY, PLYBA SPEAKER (7.5x13CM)	15MM Ø CK(NX-1604A2)								
	1-571-433-21 1-693-338-11	SWITCH, PUSH (AC POWER) TUNER/VIF (AEP) (KV-29X1A/29X1D/29X1E/29									
	1-693-340-11 1-693-339-11	TUNER/VIF (FR) (KV-29X1	В)								
			k1B/29X1D/29X1E) CTOR)								
v901	1 8-453-005-11 1 8-733-856-05 1 8-733-856-71	DEFLECTION YORE (Y29GKA NECK ASSY, PICTURE TURE PICTURE TURE (SD-269) (A ITC	(NA-297-H) 684C\$60X)								
ACCESSORIES AND PACKING MATERIALS											
	*4-042-128-01 *4-042-127-01 *4-042-126-01	CUSHION (LOWER) (ASSY)									
	4-203-366-41 4-203-366-51	MANUAL, INSTRUCTION (KV	-29X1A)(ITALIAN) -29X1B) N/ITALIAN/DUTCH)								
	4-203-366-11	MANUAL, INSTRUCTION (KV (DUTCH/GREEK/ENGLISH	-29X1D)								
	4-203-372-11		(ENGLISH/DUTCH)								
	4-203-366-71 4-203-366-81	MANUAL, INSTRUCTION (KV MANUAL, INSTRUCTION (KV (PORTUGUESE/FINNISH/I SWEDISH)	'-29X1E)								
	4-203-366-91	MANUAL, INSTRUCTION (KV (CZECH/ENGLISH/F RUSSIAN)	7-29X1K/29X1R) POLISH/BULGARIAN/								
	4-203-366-61	MANUAL, INSTRUCTION (KV	7-29X1L/29X1U) (ENGLISH)								
		BAG, PROTECTION									
		OTE COMMANDER									
	1-473-693-13	. COMMANDER, STANDARD TYPE	PE (RM-839)								
